iGenesis of IISERs: Correspondence during April 1996 to February 2006.

Brief summary of correspondence from the files of G. Swarup that has been scanned and is available in the Library of the National Centre of Radio Astrophysics, Pune 411007

---

overcome the constraints on their functioning and growth that normally operate in a conventional university.

17. **ACSTE** will develop over the years to its full stature. The enrolment of students in the first few years will be limited to 150 per year and this will grow over the years, but in no case it will exceed 300. Similarly,at any given point of time, there will be no more than 200 research students, postdoctorals etc. The faculty strength is also not expected to exceed 200-250.

18. The financial implication for the first five years on account of **ACSTE** has been estimated at Rs. 52 crores. An unique feature of **ACSTE** being its close links with the likely beneficiaries, such as science agencies like DAE, DOS/ISRO, DRDO, DST, DBT, CSIR, DOElectronics, MHRD, etc. and Industries in evolving the concept, its functioning, monitoring etc., all these agencies would finance **ACSTE** in accordance with mutually agreed sharing formula. This can be done through a one time grant of Rs 150 crores by these Govt. agencies and the creation of an endowment of Rs. 50 –100 crores by the industries in the first five years. Alternatively, these agencies and industries could fund **ACSTE** on a yearly basis. Funding of **ACSTE** by international agencies, by a developed country or a consortium of countries, or a group of Non Resident Indians can also be explored.

19. With its unique concept, philosophy and structure of **ACSTE** is expected to create a new ethos in the field of sciences education resulting in a renaissance in science and technology in the country.

Doc. 29/6

Golden Jubilee Year of Pune University, 1949-1999

UNIVERSITY OF PUNE

Ganeshkhind, Pune-411 007.

Dr. Arun Nigavekar
VICE-CHANCELLOR

Tel. : *Office* : *353868*
VC Lodge : *350765*
Telex : 0145 7719 UNIP IN
Fax : +91-212-353899
E-mail : puvc@unipune.ernet.in

VC/862.
27 July 1999

Dear Prof. Swarup.

You may kindly recall that some senior scientists and industrialists from Pune had proposed the establishment of Advanced Centre for Science and Technology Education a year back. The Ministry of Science and Technology as well as that of Human Resource Development, Govt. of India have evinced keen interest and have suggested the submission of a detailed project report for its implementation. You may also kindly recall that we had a brain storming session in this connection on 25th and 26th March 1999.

Based on the guidelines approved by the university, decisions arrived at the meeting of the representatives of various research laboratories and industries in Pune and the consensus that emerged at the brain storming session, a detailed project report has been prepared.

We are enclosing a foreword to and Executive Summary of this project report.

One of the unique features of the ACSTE is that it was conceptualized and concretized by a large number of senior scientists and industrialists. Indeed this proposal has been not from any single individual or an institution but from a group of eminent men of Pune of which you have been one.

It has been decided to convene the meeting of the signatories of this proposal on Thursday the 5th August 1999 at 4.00 p.m. in the Yashwantrao Chavan Sabhagrah of the University of Pune. We shall be highly grateful if you kindly attend the meeting and bless the proposal.

With kindest regards,

V.G. Bhide   G. Swarup   A.S. Nigavekar

D.N. Deobagkar   Y.R. Waghmare

— Swarnee Scy Atul Kirloskar : to send FAX & get OK
— PP Chabbra will attend

[Doc. 30/2 pages 30/1]

DETAILED PROJECT REPORT

ADVANCED CENTRE FOR SCIENCE AND TECHNOLOGY EDUCATION

A PROPOSAL BY

Dr. R.K. Arora
Director C-DAC

Dr. Vijay Bhatkar
CMD, ETH, Pune

Prof. V.G. Bhide
Ex-VC, Pune University, Pune

Shri. P.P. Chhabria
CMD Finolex Group, Pune

Dr. D.N. Deobagkar
Dept. of Zoology
University of Pune
Pune

Shri. Abhay Firodia
CMD, Bajaj Tempo, Pune

Dr. Naushad Forbes
Forbes & Marshall, Pune

Dr. D.A. Gadkari
Director, NIV, Pune

Dr. V.R. Gowariker
Ex-VC Pune University, Pune,

Dr. Hardwar Singh
Director, HEMRL
Pune,

Shri Atul Kirloskar
CMD, Kirloskar Oil Engines, Pune

Prof. G.C. Mishra
Director, NCCS, Pune

Dr. H.S. Mani
Director, IAT, Pune

Prof. J.V. Narlikar
Director, IUCAA, Pune

Prof. A.S. Nigavekar
VC, Pune University, Pune

Shri. Pratap Pawar
President, MCCI Pune

Dr. R.J. Rathi
CMD, Sudarshan Chemicals. Pune

Dr. Paul Ratnaswamy
Director, NCL, Pune

Dr. E.C Subbarao
Director, TRDDC, Pune

Prof. G.Swarup FRS
Homi Bhabha Senior Fellow

Dr. Y.R. Waghmare
Former Dean, IIT Kanpur

Doc. 30/2

For further information please contact Prof. V.G. Bhide, Department of Physics, University of Pune, Pune-411 007.

App. B

सत्यमेव जयते

NIRMAL SINGH
DEPUTY SECRETARY

D.O.No.5-9/97-U.I

मानव संसाधन विकास मंत्रालय
शिक्षा विभाग
भारत सरकार
नई दिल्ली - ११० ००१
MINISTRY OF HUMAN RESOURCE DEVELOPMENT
DEPARTMENT OF EDUCATION
GOVERNMENT OF INDIA
NEW DELHI - 110 001

Dated the 1st Nov. '99

Dear Sir,

E.S. had taken a meeting on 29.10.99 with representatives of Science Departments/Scientific Agencies/Organisations of the Govt. of India, V.C. Pune University and others concerned to discuss the establishment of Advanced Centre for Science and Technology (ACST) at Pune University. A copy of the minutes of the aforesaid meeting is enclosed herewith for your kind information, and necessary action.

With regards.

Yours sincerely
Nirmal Singh
(NIRMAL SINGH)

Prof. V.G. Bhide,
Ex Vice Chancellor,
University of Pune,
Department of Physics,
Pune University,
Pune.

Doc. 31 (4 pages : Page 2 & 5 missing)

31/1

year integrated education programme leading to M.Sc. and in some cases to M.Tech. degree.

The teaching and research activities of ACST will be centred around four schools namely (a) School of Basic Sciences, (b) School for Information Science and Technology, (c) School of Advanced Materials and (d) School of Life Sciences and Biotechnology.

Prof. Bhide observed that, ACST will function in the partnership and collaborative mode. Various science agencies, research laboratories, and industries which have contributed to the conceptualization and concretization of ACST will also collaborate in the functioning, funding and monitoring of the Centre. ACST will have a core staff and an almost equal complement of joint appointees from local R & D institutions and the university, visiting faculty from prestigious research laboratories and universities and adjunct faculty from industries. ACST is proposed to be set up on and around the campus of Pune University where it will have the advantage of the major national facilities such as IUCAA, NCRA, NCCS and C-DAC and the university itself in its neighbourhood.

Professor Nigavekar, V.C. Pune University pointed out that, being on the campus of Pune University, ACST will have special relationship with the University. Through mutually agreed Memorandum of Understanding they will use each others human resources and infrastructure on mutually agreed terms. Indeed the symbiotic relation between the University and ACST will be based on the concept that University will help ACST to grow and ACST will enable the University to develop. ACST with its flexibility and autonomy will provide a mechanism for the faculty of the University to overcome the constraints on their functioning and growth that normally operate in a conventional university.

Doc. 31/2

Intervening in the discussion at this stage, E.S. observed that Apex organisations of Industry and Commerce such as CII, FICCI, ASSOCHAM etc. should also be sounded for sourcing funds and forging effective industry-institution linkages for mutual benefit. He also advised Secretary, UGC to have the proposal examined straightway to find out whether the proposed Centre can be granted deemed to be university status, right from its inception, as envisaged in the revised guidelines.

Representatives of DBT, ISRO, DOE, DOS, DST and DRDO supported the proposal, in principle. Representative of DBT mentioned that the Deptt. would provide financial assistance to the proposed centre only when it becomes fully operational as there was no Scheme to give financial assistance for meeting capital cost involved in the establishment of the Centre. Representative of ISRO also clarified that assistance would be provided only for various programmes of the Centre. Representative of DRDO mentioned that since academic programmes of the proposed Centre seem to be compatible with those of DRDO, there would be no problem for DRDO to provide the requisite funds for the purpose. Representative of Deptt. of Space (DOS) mentioned that the feasibility of funding the proposed Centre has not been examined by them as yet. He assured that views of DOS on the matter will be conveyed to the Ministry in due course. Representative of Ministry of Finance indicated that the Ministry has no objection to the proposal in principle. He, however, suggested that the matter should be taken up with Ministry of Finance/Planning Commission for providing additional funds for meeting initial expenditure on the Project.

After discussing the matter from various perspectives, the following decisions were taken in this regard:-

i) The proposed Centre should be known as

Contd..4

Doc. 31/3

'Advanced Centre for Science and Technology Education'(ACSTE).

ii) Department of Education shall be the nodal Department for processing the proposal in consultation with various agencies.

iii) The proposal would be taken up with Ministry of Finance and Planning Commission for exploring the possibility of securing initial investments for establishment of the Centre.

iv) The Project Report would be forwarded to World Bank and Asian Development Bank also for exploring the possibility of sourcing the required funds.

v) A separate allocation should be earmarked in the Annual Plan of HRD for 2000-2001 for establishment of the proposed Centre. A token provision of Rs.50.00 lakhs may be suggested. The Ministries of Biotechnology, Space, Electronics, Science & Technology and DRDO may also keep a provision of Rs.10.00 lakhs each so that they can provide Rs.50.00 lakhs in all during the year 2000-2001. In this way, there would be a total provision of Rs.1.00 crore for the next financial year, for the initial start-up activities.

vi) UGC will examine the feasibility of conferring deemed University status on the Centre, right from its inception, as envisaged in the revised guidelines.

Doc. 31 /4 Page 5 missing in [illegible] bunch GS

Contd..5

UNIVERSITY OF PUNE

Dr. Shridhar R. Gadre
F.A.Sc., F.N.A.
Professor of Physical Chemistry
Head, Chemistry Department

Department of Chemistry
Pune - 411007
Maharashtra (India)

Phone : Offi.—356061
Extn.—2074, 2080
Res.—414664

December 7, 1999

Professor A. S. Nigavekar
Vice-Chancellor
University of Pune
Pune - 411 007

Sub: Your letter No. VC/1224 dated November 24, 1999 regarding ACSTE

Dear Professor Nigavekar :

Thank you very much for your above mentioned letter informing me that three different committees have been formed for further planning of ACSTE on the campus of University of Pune. I am extremely happy that the following three important areas have been included in the list.

i) Information Science and Technology
ii) Life Sciences
iii) Materials.

However, It is felt that it will be more apt to take a consolidated approach in the beginning phase for making the proposal. I believe that the center is to cater to the needs of undergraduate students and also achieve excellence in research. With this in view, we should consider in detail the contents of the course they will be undergoing. This should be done in a unified way rather than separately by three different groups which may some time move in orthogonal direction! We also have to keep in mind the fact that interdisciplinary teaching and research is going to occupy more prominent place in the

Doc. 32 (2 pages) : 32/1

Fax : (91) 0212 353899
(91) 0212 351728
Telex : 145 7719 UNIP IN
e-mail : gadre@unipune ernet.in
gadre@chem.unipune ernet.in

coming century. In teaching, our stress should be on laying solid foundation in physics, chemistry, mathematics, biology and computing. The role of chemistry, which is a central and significant science, seems to be rather underestimated in the above mentioned list of areas.

Further, it is felt that many important research areas are not covered in the list suggested in the above letter: discovery of molecules and scientific computing are two such examples. As you are aware, studying the structure and activity of molecules is going to play very vital role in drug, pharmaceutical, insecticide, flavour and fragrance industries etc. Further, we have good technical manpower to create excellent scientific software. Use of vast scientific databases and interfacing instruments to computers, several on-line applications are some such examples. The University hence need not cover conventional areas under information technology and I feel that we need not enter into these areas.

It is hence necessary that the initial planning is done in a consolidated manner rather than a fragmented one. May I hence request you to form a small core group of eminent academicians (by which I mean those who have substantial experience and excellence in teaching and research) preferably below the age of 60 to do this basic thinking. Of course the three working groups suggested by you may cover details under their areas. The first group should be termed as computer science and scientific computing and the third one as materials and molecule discovery. There should be more such groups in mathematical, physical and chemical sciences.

In any case, I will be willing to contribute to this activity.

Thanking you and with regards,

Yours sincerely,

7/12/99

(Shridhar R. Gadre)

cc:

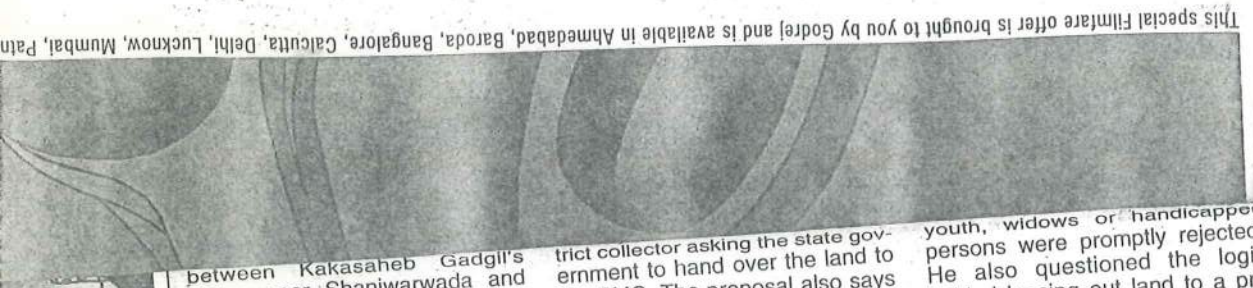
Professor V. G. Bhide

Professor Govind Swarup

Doc. 32/2

6/3/2000

Pune Times



between Kakasaheb Gadgil's statue near Shaniwarwada and the Dengle bridge, it does not specify the plot number or any other description of the land where it wants the fire-brigade station relocated.

trict collector asking the state government to hand over the land to the PMC. The proposal also says that it will be the responsibility of the Dagdusheth trust to shift the khadi shop run by the Khadi Seva Trust, which occupies around 300

youth, widows or handicapped persons were promptly rejected. He also questioned the logic behind leasing out land to a private trust when the PMC could itself use the land for better purposes.

Advanced science education centre planned in city

Rahul Chandawarkar

THE field of pure sciences, which has over the years lost many a bright aspirant to the more popular academic fields of medicine, engineering and infotech, could soon get its dose of much-needed oxygen.

The Union ministry of human resource development (HRD) has recently agreed to support the initiative of a group of scientists and industrialists from Pune, who have mooted the idea for an autonomous Advanced Centre for Science Technology Education (ACSTE) in Pune. The ACSTE plans to run a five-year integrated Masters in Science (M.Sc.) course for 150 select standard 12 aspirants from all over the country. The objective is to create a pool of young scientists to man the many research laboratories in the country, which in recent times have not been attracting sufficient talent.

In a high-level meeting held in Delhi recently, the ministry agreed to provide Rs 50 lakh and directed scientific organisations like the department of science and technology (DST), department of bio-technology and the Indian Space Research Organisation (ISRO) to contribute Rs 10 lakh each to help start the centre in Pune later this year.

Dr V G Bhide, former vice-chancellor of the University of Pune, who is the key mover of the ACSTE project, told *Pune Times* that the centre may be housed inside the Pune university campus.

The ACSTE initiative assumes significance in view of the frightening drop in the standard of science education across the country and the very low percentage of students opting for pure sciences. So critical is the situation that Prof Jayant Narlikar, director of the Inter-University Centre for Astro-nomy and Astrophysics (IUCAA), had recently said that in ten years from now, there would be no backbone left to man our laboratories.

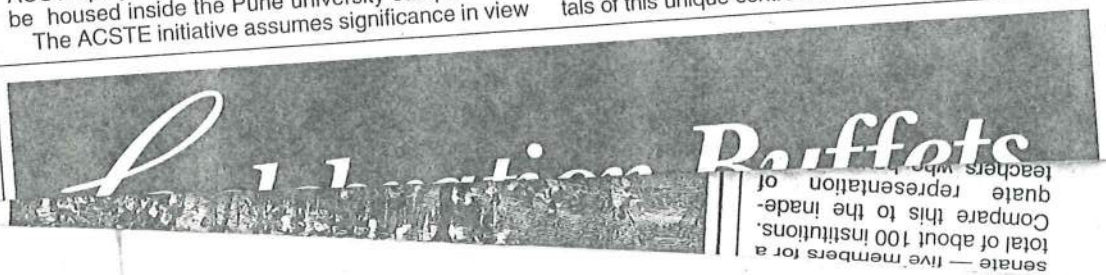
His fears are not unfounded, given the statistics from a study carried out by Dr V G Bhide some time ago. The study revealed that while there were as many 32 per cent students in 1950 opting for science stream after their standard 12 exams, the figure has dropped to 18 per cent in recent times:

Dr Bhide said that the ACSTE centre would concentrate on education through exploration, while the teaching and research programmes will centre around four schools of science — basic sciences, information science and technology, advanced materials and life sciences, and bio-technology. The centre would be served by a core staff and supplemented by scientists from research organisations in Pune and other visiting researchers from scientific laboratories in the country.

Bhide said a group of experts has been formed in Pune, which is currently formulating research programmes in the above-mentioned thrust areas. Bhide is hoping that the first batch of students will enter the portals of this unique centre in June 2001.

suffers
n wife's
attempt

incident, a middle-
who was overwhel-
esire to see her son
sted out of the
icide by setting her
t their house at Warje
night. However, her
ered a higher degree
ttempting to save her.
been admitted to the
spita'
won... Gayatri Roy
aid to have sustained
r cent burns, her hus-
(50), is in a critical con-
over 80 per cent burns.
urces said Dilip is a lab-
sistant with Sudarshan
. The couple has two
sons, both employed.
younger son stays with
older one is in Calcutta.
s said Gayatri was nag-



senate — five members for a total of about 100 institutions. Compare this to the inadequate representation of teachers wh

Doc. 33 : 1 page

App. 14

Minutes of the Second Inter-Agency meeting held on 23.5.2000 to discuss the establishment of Advanced Centre of Science & Technology(ACSTE) at Pune University

ES took a second Inter-Agency meeting on 23.5.2000 to review the status of the proposal for the establishement of an Advanced Centre for Science and Technology Education (ACSTE) at Pune University. The list of participants is enclosed.

2. At the instance of Education Secretary, Shri Champak Chatterjee, Joint Secretary(Higher Education) initiated the discussion. At the outset, he explained the main decisions taken at the first meeting held on 29.10.1999.

3. Dr. Ashok Sahu who represented the Department of Expenditure informed that the Department of Expenditure was not specifically against the setting up of the proposed Centre. However, if a decision was made tc go ahead with the project and the Govt. funding was a part of the scheme, the procedural aspect of EFC/SFC approval and Cabinet approval will have to be gone through as there are now instructions from the Finance Minister that all the proposals for the establishement of new autonomous organisations shall have to get the approval of the Cabinet.

4. On the issue of exploring possibility of funding for the proposed Centre by the World Bank and the Asian Development Bank, Shri V. Siddhartha, Adviser, DRDO conveyed that DRDO had strong objections to this. He mentioned that the DRDO was against the funding of such kind of projects by foreign agencies. When it was pointed out that DRDO had not opposed this decision in the last meeting, he stated that the earlier stand taken by the DRDO

Doc. 34 : 3 pages 34/1

has been changed.

5. Shri Siddhartha also mentioned that the DRDO was not in favour of setting up of the proposed Centre as an autonomous institution registered under the Societies Registration Act. He further mentioned that the proposed Centre should be set up as autonomous institution by an Act of Parliament and it should be science based and not technology based. There was also some discussion regarding the type of organisational pattern and the salary structure for the employees of the proposed centre. Some participants favoured the adoption of IIT pattern.

6. Shri Chatterjee informed that the Department of Education has already earmarked an amount of Rs. 50 lakhs for the proposed Centre in the current year's budget of UGC and a communication in this regard has already been sent to UGC. The representative of the Department of Bio-Technology informed that they have kept a provision of Rs. 10 lakhs during the current year's budget. The representatives of DRDO, Department of Electronics and the CSIR also confirmed to keep a provision of Rs. 10 lakhs each during current year's budget for the initial start-up activities of the proposed Centre.

7. After discussing the matter from various perspectives, the following decisions were taken:-

i) The name of the proposed Centre should be changed as National Institute for Science Education and Research (NISER).

ii) Vice-Chancellor, Pune University may circulate a note for discussion, in the light of today's meeting. This would be the basis for the next step envisaged in para (iii).

Doc. 34/2

iii) A meeting should be held with Dr.A.P.J. Abdul Kalam, Principal Scientific Adviser to the Govt. Wherein secretaries from different science Departments should also be invited to discuss the proposal for setting up of centre for Science and Technology education at Pune.

iv) In the meantime, steps may be taken to prepare a draft EFC memo for circulation to all concerened for comments.

8. The meeting ended with a vote of thanks to the Chair.

Doc. 34/3

Date: Wed, 24 May 2000 19:58:27 +0530
From: Dr. P. J. Lavakare <lavakare@vsnl.com>
To: Bhide V.G. <vgb@physics.unipune.ernet.in>
Cc: Waghmare <yrw@physics.unipune.ernet.in>, puvc@unipune.ernet.in,
Govind Swarup <gswarup@ncra.tifr.res.in>
Subject: some inputs for Prof. Bhide

Dear Prof. Bhide,

I am enclosing some notes which you may like to use for preparing the minutes to be sent to Mr.Champak Chatterjee.
As regards the draft of the letter from Mr.Kaw to Dr.Abdul Kalam,and the accommpanying appendices, I will send it later tomorrow.

regards,

P.J.Lavakare

DRAFT

Highlights of the meetings held in Delhi during the visit of the ACSTE sponsors, Prof. V.G.Bhide, Prof. Govind Swarup , Prof. Arun Nigavekar and Dr. P.J.Lavakare.
May 23-24, 2000.

1. Interagency meeting in MHRD, May 23, 2000.

Follow up actions taken after the last meeting of Oct.29, 1999 were reviewed.

The written report given by the Pune University was noted.

MHRD had made the allocation of Rs.50 lakhs to UGC for sanctioning the amount to the Pune University for the ACSTE project.

The Department of Biotechnology had also made an allocation of Rs.10 lakhs and the Pune University would be expected to identify preliminary activities which could be taken up to launch the project and start preparations for setting up ACSTE as an appropriate institution.

Education Secretary requested the other scientific agencies to also set aside the amount for ACSTE as was agreed at the last interagency meeting.

The representative of the Ministry of Finance, while reiterating the view that it has no objection to the proposal, emphasized the fact that t would be necessary for the MHRD to prepare an EFC memo for the setting up of ACSTE and Planning commission should provide funds for ACSTE.

Representative of DRDO expressed the view that ACSTE is a welcome concept, and it may be possible to fund it from the funds available to the scientific agencies, without having to go to an international funding agencies. He added that DRDO would be in a position to fund the proposal but mechanisms for funding would have to be worked out amongst the Scientific agencies. Further, the institutional structure would have to ensure a separate statutory autonomous structure for ACSTE.

The various scientific agencies like Ministry of Information Technology, DSIR and others may be able to allocate resources for ACSTE, if a proper mechanism is worked out between the scientific agencies and the Planning Commission.

Chairman, UGC also welcomed the proposal and felt that the University system must be strengthened so as to improved the quality of Education and Research in the universities.

There was considerable discussion on the nature of organisational structure that should be given to ACSTE. Various suggestions for the name of the institution were also discussed to represent the unique nature of the organisation proposed in the ACSTE project.

Doc. 35 : 2 pages 35/1

Based on the above discussions, following decisions were taken:

1. The ACSTE proposal deserves to be supported by all the scientific agencies and to work out an arrangement for providing funds, as well as to define its structure, a meeting of all the Scientific secretaries may be called by Dr. Abdul Kalam, Principle Scientific Advisor to the Govt. of India. MHRD being the nodal department identified for ACSTE, Education Secretary was requested to write to Dr.Abdul Kalam, to convene such a meeting. (Action: Education Secretary, MHRD).

2. It will be necessary to prepare an EFC memo for getting the approval for the project. MHRD will prepare the necessary EFC memo, in consultation with the Pune University and based the decisions that would be arrived at the meeting to be convened by the Principal Scientific Adviser to the Govt. of India. (Action: Pune University & MHRD)

Dol. 35/2

DRAFT

Ministry of Human Resources Development
Department of Education

EFC MEMORANDUM
For the Establishment of the
Advanced Centre for Science & Technology Education
(ACSTE)

1. Sponsoring Ministry / Department:

Ministry of Human Resources Development / Department of Education

2. Statement of Proposal :

a). This is a centrally funded project for setting up an Advanced Centre for Science & Technology Education as an autonomous educational institution with the status of a deemed university. (Detailed Project Report in two volumes are enclosed)

A proposal outlining the concept for the Centre was sent by Pune University to Member (Education) Planning Commission in December 1996.

The then Member (Education), Planning Commission had written two letters -one on February 7, 1997 and the other on April 4, 1997- to Secretary education recommending that support be given to the proposal from within the allocations for higher education in Ninth Five Year Plan.

A detailed project proposal was prepared with the financial support provided by the Department of Science & Technology. The proposal has been discussed in two inter-agency meetings convened by Secretary, Education, where it has been agreed that the Department of Education would be the nodal department for this Centre. The first meeting was held on 29.10.99 and the second one on 23.5.2000.

The Department of Education has already earmarked a token amount of Rs. 50 lakhs for the proposed Centre in the Ministry's budget for the year 2000-2001. Other Science departments have also given support to this proposal and modalities for their financial participation are being worked out.

Doc. 36 : 9 pages | 36/1

b.) This is a totally new concept for the setting up of a Centre and no such institution exists in any other ministries or in the States.
c.) This is a **New Proposal** for setting up an Advanced Centre for Science & Technology Education (ACSTE) in the Ninth Five-Year Plan.

d.) Reasons and Justification for the Proposal etc.:

The enclosed Project Proposal (Vol.1&2) describes in detail the background to this proposal and gives all details pertaining to the academic and administrative aspect of the proposed Centre. The following paragraphs give the Executive Summary of the proposal.

The proposal to establish the Advanced Centre for Science & Technology Education (ACSTE) is the result of the response to the growing concern expressed by the scientific community, science administrators, educationists and industrialists. Their concern was about the continual decline of the standards of science education at all levels. They were also concerned about the growing urgency to make available, within the country, an adequate supply of well-qualified and highly motivated scientists and technologists to participate in the national development programmes and in the strategically important projects. These young personnel, properly trained in science and technology, should be able to face challenges and seize tremendous opportunities that the emerging global scenario, dominated increasingly by Science and Technology, is likely to offer.

The proposed Centre will not only provide research facilities at the frontiers of science and at the cutting edge of technology in chosen fields, but will also offer a five year integrated education programme leading to an M.Sc. degree. In some cases, the Centre will also offer an M.Tech degree normally not available in other educational institutions.

Right from its initiation, the Centre expects to work in partnership with the science departments and scientific agencies such as DAE, DBT, ISRO, DRDO, DOE, CSIR, etc. and the industry. It is proposed to use guest faculty from these organisations and also use the research facilities available with these organizations. After successful completion of the three-year programme, a student will proceed to study for another two years in their chosen field of specialization. The unique feature of the ACSTE's academic programme is the internship programme in the last semester and in the adjoining summer vacation. During the internship period, a student will carry out a research or development project in any of the laboratories of the science agencies referred above.

Other aspects of the proposal pertaining to its viability and relevance are discussed in detail in the enclosed project proposal.

Dol. 36/2

e.) Basis for selection of location:

Pune has the unique distinction of being a place where scholarship and learning have been fostered over generations. It is the intellectual, educational and cultural capital of Maharashtra. It has the highest concentration of scientific and technologically oriented entrepreneurs in the country. Besides, there are nearly two dozen major industrial houses in Pune such as Kirloskars, Bajaj, Garware, Firodia, Mahindra and Mahindra, TELCO, FINOLEX, Alfa Laval, Thermax etc. and over 8000 small scale industries.

Pune is chosen as the location for the ACSTE in view of the fact that special academic and administrative relationship has been developed with the Pune University, during the preparation of this proposal. University of Pune has agreed in principle vide Management council's resolution dated 27 January 1999 to set up the ACSTE on and around the campus of the University under clause 7(5) of the Maharashtra Universities Act of 1994.

ACSTE and the Pune University will have special relationships through a mutually agreed Memorandum of Understanding. To begin with the degrees to be offered to the students of ACSTE would be those of the Pune University. Some of the faculty of the Pune University would be used to impart education in the selected fields. Research facilities set up on the campus of the Pune University by the various scientific agencies would be utilized for the research and teaching programmes of ACSTE. Facilities of CSIR and DRDO existing in the city of Pune would also be used for this purpose. The autonomy of the ACSTE will provide the necessary mechanisms for undertaking its programmes in partnership with Pune University and the science agencies. Pune is therefore considered to be a unique location for setting up of ACSTE.

f.) Inclusion of the Proposal in the Ninth Five Year:

As indicated earlier, Member (Education), Planning Commission had proposed to the Department of Education to include this proposal in the Ninth Five-Year Plan. The Department of Education has already made a token provision of Rs.50 lakhs in its annual plan for the year 2000-2001. Other Science departments have expressed willingness to make appropriate provisions in their plans.

g.) and h.): Estimated Yield and Economic Benefits etc.

This is a new proposal in the field of Education and the expected benefits are of social nature involving the building up of the National scientific and technical capabilities for the benefit of the country as a whole through the application of Science in Technology.

Dol. 36/3

i.), j.) and k). Consultation with other Ministries/Departments and Planning Commission etc.

As indicated earlier, the proposal had been referred to the Planning Commission. The preparation of the project document has been supported by the Department of Science & Technology. The Department of Education has held two interagency meetings involving the various science departments and representatives of the University Grants Commission & Plan Finance. The minutes of the two interagency meetings are given at Annexures. The Department of Education has been identified as the nodal department. It has included it in its annual plan a token provision of Rs.50 lakhs for the ACSTE project, during the year 2000-2001. The amount has been released to UGC for onward transmission to the ACSTE project of the Pune University.

3. Programme Schedule

a.) Project Details etc.

The Department of Science and Technology had provided a special grant to Pune University to prepare a detailed Project Proposal. This was prepared, and with the signatures of a number of scientists and industrialists, forwarded to the Department of Education and Science Departments of the Government of India. The proposal has received support from all the departments and agencies. The proposal was also discussed in the two interagency meetings convened by the Department of Education. The detail project document (vol.1&2) together with the minutes of the two interagency meetings convened by the Department of Education are given as supplementary information in the Annexures.

b.) c). and d.) Schedule of Project Completion etc.

Once the EFC Memo is approved, the Centre would be registered as an autonomous body under the Registration of Society's act. . A temporary Project office would be set up in Pune. The appointment of faculty and the recruitment of students for the various courses/degrees would be started from the academic year 2002-2003. The first batch of students would obtain their undergraduate degrees during 2005-2006. Existing teaching and research facilities available in the Pune University and in the national facilities of the science agencies located in the city of Pune would be utilized. In the mean time, land for the autonomous institute of ACSTE would be acquired and building work started.

It is planned that from the date of the approval of the budgetary provisions for ACSTE, the independent campus would be operational in the following five years. The detail steps involved in setting up the ACSTE are described in the Project Document enclosed.

Doc. 36/4

e.) Dislocation of Human settlement etc.

The Project does not involve any dislocation of Human settlements. The land to be acquired for the campus of ACSTE would be on a vacant plot belonging to the Government.

4. Expenditure Involved:

a.) Total Expenditure

The details of the expenditures involved are given in the Financial Statement of the Project Document. A summary of the outlay proposed for the first five-year period is as under:

A. Civil Works ..... Rs. 15.00 Crores

B. Equipment

Non-recurring..... Rs.10.00 Crores
Recurring ..... Rs 10.00 Crores

C. Staff Salaries
(Core, joint appointees, visiting and adjunct faculty etc)..Rs.10.00 Crores

D. Library ..... Rs. 2.00 Crores

E. Administration .....Rs. 1.00 Crores

TOTAL **Rs. 48.00 Crores**

b.) Details of Financing the project, obligations from other sources etc.

(TO BE FILLED BY PUNE GROUP . Please note that I have purposely reduced the budget to below 50 Crores to expedite the processing of this EFC memo)

c.) Foreign Exchange Component etc.

Most of the expenses to be incurred on the project will be in local currencies. A small provision of say about Rs. 5 Crores is being made for specialized equipment, if necessary. There will not be any special provision for expenditure on foreign experts, as local experts would execute the entire project.

Doc. 36/5

d.) and e.) Phasing of Expenditure (non-recurring and recurring)

i) On constant prices
ii) On completion cost (1(5)PF-II/96 dt. 06.08.97)

(TO BE COMPLETED BY THE PUNE GROUP)

5. Reliability of Cost Estimates and other Parameters:

(ALL THE INFORMATION REQUIRED UNDER THIS SECTION MUST BE FILLED IN PUNE BY THE PUNE GROUP IN CONSULTATION WITH APPROPRIATE FINANCIAL EXPERTS)

6. Operational Capabilities

a.) Ministry of Human Resources Development and Pune University:

The Ministry has set up several technical educational institutions, universities, institutes of national importance etc. Norms and practices used for setting up such institutions would be applied to the setting up of ACSTE keeping in mind the autonomous nature of this institution.

The Pune University has been operational for several years and has over the years set up several research and teaching facilities on its campus. Some of these are independent, autonomous institutions funded by various government agencies and the University Grants Commission. All these institutions have helped and enhanced the academic environment of the Pune University. It is proposed that ACSTE will also be one more such autonomous institution on and around the campus of the Pune University that will help the enhancement of the academic programmes of the University.

The Project of ACSTE also envisages the partnership with major Science agencies in the country. These agencies have the expertise and facilities that would be available to the Centre, thus augmenting its research and teaching capabilities.

b.) and c.) Revised Cost Estimate (RCE) Proposals :

The Proposal of setting up of the ACSTE is a **new** proposal. **The requirements of RCE are not applicable in this case.**

Doc. 36/6

7. Add statements showing:

(i) Number of Posts required, pay scales, basis of staffing etc.

The ACSTE will be an autonomous institute and the staff to be appointed would be as per the rules and byelaws framed by the appropriate authority. The staff appointed will not be government employees. The detailed requirement of the Faculty has been given in the project document under the sections on Administrative and Academic Structure of ACSTE. In brief the staffing structure would be as follows:

Director	1
Registrar	1
Finance Officer	1.

The total faculty strength is not expected to exceed 200-250. This will comprise of 90-100 as core faculty, 60-75 joint appointees and 40-50 visiting faculty. The total student strength is expected to be about 1000, thus the student to teacher ratio would be maintained at 4:1.

(ii) and (iii): Expenditure on buildings, stores and equipment (in phased manner) etc.

(THIS INFORMATION MAY BE FILLED IN BY THE PUNE GROUP)

8. Viability:

The need for setting up of ACSTE has been justified under item 2 of this format. The outcome of the project is going to be in terms of supply of qualified science and technology manpower in selected fields identified as priority areas required for the national programmes of the science agencies. The agencies **have** expressed their concern of not getting adequate manpower for their programmes and ACSTE could provide atleast some of their requirements through development of appropriate linkages between ACSTE and the Science Agencies.

It is expected that ACSTE will be able to charge tuition fees and receive adequate funding for research grants, as well as funding from private sources, so as to be relatively self sufficient once it gets established on a firm footing. Efforts would be made to minimize the dependence on government grants after the initial five-year period.

Application of strict financial and economic return criteria, normally applicable to commercial projects, are not applicable to this educational project.

Doc. 36/7

9. Appointment of Nodal Officer etc.

The nodal officer of the ACSTE will be the Director of the Centre. This appointment will be made on the basis of his/her academic and administrative capabilities of being in charge of an educational and research institution in the field of Science and Technology. The appointment will be made by the Governing Body of the Centre, as stipulated in the Memorandum of Association and the Rules and Regulations of the Centre. In the interim period, it is proposed to appoint a Project Officer on a short-term contract basis, who will undertake the responsibilities of initiating various steps to establish the Centre. The Project Officer's appointment will not be continued after a suitable Director for the Centre is selected. The Project Officer could be a retired academic person with sufficient background and administrative experience of running an academic institution.

Note: Item nos. 10 to 23 of the EFC format are applicable only to the proposals involving Revised Cost Estimates (RCE).

---

24. Whether on EFC Memo Financial Adviser's concurrence /comments have been obtained? If so details thereof. (66(14)-PF.II/98 dated 11.8.1998):

(THIS INFORMATION WOULD HAVE TO BE FILLED IN BY THE FINANCIAL ADVISER OF THE DEPARTMENT OF EDUCATION)

25. Supplementary Information:

Following documents have been enclosed as supplementary information:

1. Project Report on "Advanced Centre for Science and Technology Education" - Vols. 1 & 2.
2. Letter dated December 17, 1996 from Pune University addressed to Member (Education), Planning Commission.
3. Letter dated February 12, 1997 from Secretary, Department of Science & Technology to the Vice Chancellor, Pune University.
4. Letter dated April 4, 1997 from the Member (Education), Planning Commission to the Secretary, Department of Education.
5. Letter dated July 22, 1997 from Minister of State, Science & Technology, addressed to Prof. G. Swarup, Professor Emeritus, NCRA, Pune.
6. Sanction Order dated 21.9.98 issued by the Department of Science and Technology, Government of India providing financial assistance to Pune University for preparing a detailed Project Report for setting up the Advanced Centre for Science & Technology at Poona.

Doc. 36/8

7. Minutes of the first Interagency meeting called by Secretary, Department of Education on 29.10.1999
8. Minutes of the second interagency meeting called by Secretary, Department of Education on 23.5.2000.

9. Letter dated ??? Issued by the Department of Education to the University Grants Commission, sanctioning a token grant of Rs. 50 lakhs for the project of ACSTE at the Pune University.

26. Points on which decision / sanctions are required:

SUGGESTED POINTS from P.J.Lavakare

(To be discussed by the Pune group with the Department of Higher Education.)

1. The Expenditure Finance Committee is requested to give the approval for the establishment of the Advanced Centre for Science & Technology Education (ACSTE), in Pune, as an autonomous educational institution, registered under the Society's Registration Act. The Department of Higher Education, Ministry of Human Resources Development would act as its nodal department in the Government.
2. An amount of Rs. 48.00 Crores be allocated in the (revised) budget of the Ministry of Human Resources Development for the Ninth Five Year Plan period, specially earmarked for the Advanced Centre for Science & Technology Education (ACSTE).
3. The various Science Department may be allowed to make specific and appropriate financial provisions for ACSTE in their own Ninth Five Year Plan, so as to enable them, as partners, to support and participate in the activities of the Centre.

Doc. 36/9

REF:NCRA:PU:2000

4th September 2000

To

PERSONAL AND URGENT

Prof. Murli Manohar Joshi
Minister for Human Resources &
Development
6, Ralsina Road,
New Delhi-1

Dear Prof. Joshi,

1. I would be grateful if you could spare about 15 or 20 minutes either on 15th September 2000 evening or 16th September 2000 morning if it suits your convenience, for discussions concerning under-graduate science education in India. I would request Dr. R.A. Mashelkar, Director General, CSIR and one or two other senior scientists to join in the meeting.

2. The situation is indeed alarming. Non of the science colleges in Delhi are able to fill up the seats in any subjects, even though the cut off mark is made below 50% in many cases. Similarly, for the leading under-graduate science colleges in Pune the cut off mark is 40% or less.

3. As you may recall, that we had made a proposal for the Advance Centre for Science and Technology Education (ACSTE) to be established in Pune. Our concept can be widened for the ACSTE and the net-work for the degree colleges across India to enhance quality of science education in India by offering a special course through correspondence and one month intensive course at

Doc. 37 1 : 2 pages 37/1

respective places by selected faculties. This can be in addition to the existing caliber of the respective State Governments.

4. There may be many other ideas. I would like to talk to you a few ideas so that Ministry of HRD could take some urgent steps for meeting under-graduate science education in India.

5. Please do let me know your convenience at the earliest so that I can make air reservations. I am coming to Delhi for a meeting on 15th September 2000 at 11.00 a.m. in CSIR, Headquarters, Rafi Marg, Delhi-110 001.

With regards,

Yours sincerely,

Govind Swarup

(Govind Swarup)

C.C.to

To

Prof. Murli Manohar Joshi
Hon'ble Minister for Science & Technology
Ministry of HRD
22, Gurudwara Rakab Ganj Road
New Delhi

Doc. 37/2

UNIVERSITY OF PUNE

Ganeshkhind, Pune-411 007.

Dr. Arun Nigavekar
VICE-CHANCELLOR

Tel. : *Office* : *5653868*
VC Lodge : *5650765*
Telex : 0145 7719 UNIP IN
Fax : +91-020-5653899
e-mail : puvc@unipune.ernet.in

15/9/2000

OFFICE ORDER

Subject : Establishment of Advanced Centre for Science and Technology Education (ACSTE)

1. A project report prepared by a Committee constituted by the University under the Chairmanship of Prof. V.G. Bhide, was submitted to the Ministry of Human Resource Development.

2. Secretary, Department of Education, in the Ministry of Human Resource Development convened Inter Agency Meetings on 29.10.1998 and on 23rd may 2000. At these meeting it was deiced to establish Advanced Centre for Science and Technology Education at Pune.

3. Department of Education , MHRD has approved seed money of Rs. 50 lakhs and this amount has been sent to UGC for being transmitted for undertaking preliminary activities concerning the establishment of ACSTE. DBT has likewise provided for Rs. 10 lakhs in its budget for ACSTE.

4. It is now necessary to pursue this proposal vigorously with Planning Commission and several other ministries in order to ensure the establishment of ACSTE at Pune in a few months time. In addition, it is necessary to prepare Memorandum of Association for ACSTE, to get it approved by Government of India (GOI), so that ACSTE is registered as an autonomous society under Society's Registration Act. It will also be necessary to prepare EFC memo and get is approved by GOI.

5. Likewise, it will be necessary to undertake several preliminary actions such as securing suitable land for ACSTE from Ministry of Defence, / Pune Municipal Corporation / Govt of Maharashtra.

Doc. 38 : 2 pages / 38/1

6. In order to pursue all the above and take all suitable steps in order to ensure the early establishment of ACSTE, the following Project Implementation Committee has been constituted and has been delegated the powers to correspond with GOI agencies, Defence Ministry, State Govt.etc.

7. The committee will liase with NCL who have offered to make two rooms available in NCL for the project office of ACSTE.

8. The committee will cease to function as soon as the ACSTE is registered as an autonomous society and its Governing Body comes into existence.

9. The Chairman of the committee has been authorised to sanction expenditure for the various activities from amongst the budget made available for preparatory action. The finances will however, be operated by Prof. D.N. Deobagkar.

10. The committee will also take all steps to ensure that ACSTE is included as a Plan Activity in the next five year plan.

11. The committee will also identify project coordinators, for understanding various activities such as (a) Project Management, (b) Academic and Syllabus, (c) Land scalping, (d) Building and construction, etc. All these will be of planing nature. The actual implementation will be carried out only through the decisions of the Governing Body of ACSTE as and when formed.

12. The composition of the Committee is as under. It is essentially a subcommittee of the committee that prepared the project report for ACSTE.

1. Prof. V.G. Bhide	Chairman
2. Prof. G. Swaroop	Member
3. Dr. Paul Ratnaswamy	Member
4. Prof. G. Sen	Member
5. Prof. D.N. Deobagkar	Member – Secretary

A. Nigavekar

Arun Nigavekar
Vice Chancellor

Copy to: 1. Registrar
2. Finance & Account Officer
3. All the members
4. Secretary, Dept of Education, MHRD, Govt. of India for information

VC/642
Date: 15/9/2000

Doc 38/2

National Centre for Radio Astrophysics
TATA INSTITUTE OF FUNDAMENTAL RESEARCH

NCRA, PUNE UNIVERSITY CAMPUS, POST BAG NO.3, GANESHKHIND, PUNE 411 007, INDIA
Telephone: (020) 565 6111; Gen. 565 7107, 565 1384-5; Res. 5899030 Fax: 565 5149
Telex: 0145-7658 GMRT IN; Gram: RASTRON; Email: gswarup@ncra.tifr.res.in

NCRA • TIFR

Prof. Govind Swarup, F.R.S.
Homi Bhabha Senior Fellow
Ex-Director, NCRA/GMRT

REF:NCRA:PU:2000

4th October 2000

PERSONAL AND URGENT

Prof. Murli Manohar Joshi
Minister for Human Resources Development
Ministry of Human Resource Development
Department of Education
Government of India
Shastri Bhawan
New Delhi-110 001

Dear Prof. Joshi,

1. Myself and Prof. V.G. Bhide would very much like to meet you at any time, convenient to you on 9th October 2000 morning, afternoon or evening. We would like to discuss with you certain innovative ideas concerning under-graduate science education in India and seek your guidance. It is indeed a very urgent problem. There are about a million students studying in under-graduate colleges. It would be very useful if we could provide them opportunities in career oriented fields such as "applied electronics and computer science" or "chemical engineering and computer science", etc. Today bright students are not joining the science stream as our syllabus and teaching do not provide them a career opportunity. We need to select 20 or 30 colleges across India and provide them meaningful education.

2. Perhaps a tie up between National Laboratories, software industries and selected colleges may allow us to correct the present lacunae. India cannot progress without good science education !

3. I may add that myself and Prof. V.G. Bhide are coming to Delhi on 8th October 2000 for attending a meeting on 10th October 2000 at 10.00 a.m. in CSIR Science Centre, Lodhi Road, New Delhi.

4. Please do let me know your convenience at the earliest.

With regards,

Yours sincerely,

Govind Swarup

(Govind Swarup)

c.c. to
Dr. Arun Nigavekar

Doc. 39 : 1 page

39/1

National Centre for Radio Astrophysics
TATA INSTITUTE OF FUNDAMENTAL RESEARCH

NCRA, PUNE UNIVERSITY CAMPUS, POST BAG NO.3, GANESHKHIND, PUNE 411 007, INDIA
Telephone: (020) 565 6111; Gen. 565 7107, 565 1384-5; Res. 5899030 Fax: 565 5149
Telex: 0145-7658 GMRT IN; Gram: RASTRON; Email: gswarup@ncra.tifr.res.in

NCRA • TIFR

Prof. Govind Swarup, F.R.S.
Homi Bhabha Senior Fellow
Ex-Director, NCRA/GMRT

011-3231797

REF:NCRA:PU:2000

6th October 2000

Prof. Arun Nigavekar
Vice-Chairman
University Grants Commission
Bahadur Shah Zafar Marg
New Delhi-110 002

Dear Prof. Nigavekar,

1. Myself and Prof. V.G. Bhide are coming to Delhi on Sunday the 8th October 2000 to attend a meeting on Tuesday the 10th October 2000 at 10.00 a.m. in CSIR Science Centre, Lodhi Road, New Delhi-110 003. On Monday, we have requested Dr. P.J. Lavakare to arrange a meeting with Shri Champak Chatterji, Joint Secretary, MHRD and Shri Nirmal Singh. I have also sent a fax to Prof. Murli Manohar Joshi seeking an appointment. I enclose a copy of the same.

2. Dr. P.J. Lavakare has informed me that the note for transfer of Rs. 50.00 lakhs to the University of Pune for ACSTE has been sent to Prof. Murli Manohar Joshi quite sometime ago and the file is with him.

3. It would be useful if you could send a fax or telephone Prof. Murli Manohar Joshi and try to seek an appointment with him on Monday the 9th October 2000 for seeking his guidance for improving undergraduate science education as well as for discussing the ACSTE proposal.

4. I am marking a copy of this letter to Dr. P.J. Lavakare so that he could coordinate with you.

With best regards,

Yours sincerely,

Govind Swarup

(Govind Swarup)

c.c. to

Doc. 40 : 1 page 4011

National Centre for Radio Astrophysics
TATA INSTITUTE OF FUNDAMENTAL RESEARCH

NCRA, PUNE UNIVERSITY CAMPUS, POST BAG NO.3, GANESHKHIND, PUNE 411 007, INDIA
Telephone: (020) 565 6111; Gen. 565 7107, 565 1384-5; Res.5899030 Fax: 565 5149
Telex: 0145-7658 GMRT IN; Gram: RASTRON; Email: gswarup@ncra.tifr.res.in

NCRA • TIFR

Prof. Govind Swarup, F.R.S.
Homi Bhabha Senior Fellow
Ex-Director, NCRA/GMRT

REF:NCRA:PU: 2000 31st October 2000

Dr. K. Kasturirangan
Chairman
ISRO Headquarters
Antariksh Bhavan
New Bel Road
Bangalore-560 094

Sub: Request for sending letter to Prof. Murli Manohar Joshi regarding ACSTE

Dear Dr. Rangan,

1. We have been told by the office of Shri M.K. Kaw, Secretary, MHRD that the file of the "Advanced Centre for Science and Technology Education (ACSTE)" is pending with the Hon'ble Minister Prof. Murli Manohar Joshi, Minister for MHRD.

2. As you are aware that the proposal of ACSTE has been strongly endorsed by two Inter-Agency meetings attended by representatives of seven major science agencies in India. ISRO representative had also strongly endorsed the proposal. You had also highlighted to me the importance of manpower training in science and technology and had asked me to see the Hon'ble Minister Prof. Joshi early last year. I had met him subsequently and had sent him a note regarding science education in India.

3. I will be in Delhi on the afternoon of 11th November 2000 and on all the days from 19th November 2000 to the morning of 23rd November 2000. I will deeply appreciate if you could kindly send a letter to the Hon'ble Minister Prof. Joshi to give his valuable time of about 15 or 20 minutes on any of the dates suitable to him on the above days (or any date after 5th December 2000). I plan to apprise him of our vision and dream about ACSTE. (Our proposal is supported by leading scientists, educationists as well as leading industrialists in Pune. In summary we have proposed a five year integrated M.Sc/M.Tech. programme with both teaching and research to be carried out concurrently. During the fifth year the students will work in leading research institutes or industries, whomsoever supports our programme. This way we will have a close involvement of leading scientists and industrialists in our programme. Once ACSTE is established, we will also be able to network with leading under-graduate colleges in various parts of India.)

Doc. 41 ; 4 pages 41/1

NCRA • TIFR

4. I enclose a draft letter addressed to the Hon'ble Minister Prof. Joshi, which you may consider sending to him by speed-post after suitably modifying it.

With best regards,

Yours sincerely,

Govind

(Govind Swarup)

Encl:as above

Doc. 41/2

REF: Date:

BY SPEED POST

DRAFT

Prof. Murli Manohar Joshi
Minister for Human Resources Development
Ministry of Human Resource Development
Department of Education
Government of India
Shastri Bhawan
New Delhi-110 001

Sub: Advanced Centre for Science and Technology Education (ACSTE)

Dear Prof. Joshi,

1. Please refer to the proposal for the establishment of Advanced Centre for Science and Technology Education (ACSTE) at Pune for a novel 5 year M.Sc./M.Tech. programme which integrates teaching and research during the entire period. It is proposed that ACSTE be set up as an Autonomous Centre in collaboration with the University of Pune and leading research institutes on or near the campus of the University of Pune viz. C-DAC, IUCAA, NCRA/GMRT-TIFR, NCL (CSIR) and NCCS (DBT). The proposal of ACSTE has been strongly endorsed by representatives of seven major science agencies in India in two Inter-Agency meetings chaired by Shri M.K. Kaw, Secretary, MHRD. Prof. Hari Gautam, Chairman, UGC has also supported the proposal. MHRD has indicated its willingness to be the nodal agency for ACSTE.

2. Prof. Govind Swarup, FRS, of the Tata Institute of Fundamental Research who is one of the member of the group which has submitted the above proposal will be in Delhi on the afternoon of 11th November 2000 and on all days from

Doc. 41/3

19th November 2000 to the morning of 23rd November 2000. I have advised him to see you and discuss with you the ACSTE proposal and also certain other ideas proposed by him with regard to the improvement of under-graduate education in selected centres across India, taking the help of national laboratories and science agencies.

3. I request you to indicate convenient date and time during one of the above dates or any other date after 5th December 2000 as convenient to you. Prof. G. Swarup's address is given below:

Prof. G. Swarup
Homi Bhabha Senior Fellow
NCRA-TIFR, Post Bag No.3
Pune University Campus
Ganeshkhind Road
Pune-411 007

Tel. No. (020) 5656111 (Direct) or 5657107 (Board)
Fax No. (020) 5657257 or 5655149
Email : gswarup@ncra.tifr.res.in

With best regards,

Yours sincerely,

(K. Kasturirangan)

Doc. 41/4

Date: Mon, 23 Oct 2000 21:30:58 +0530
From: Dr. P. J. Lavakare <lavakare@vsnl.com>
To: Govind Swarup <gswarup@ncra.tifr.res.in>
Subject: Re: ACSTE

Govind Swarup wrote:
>
> Dear Prabhakar,
>
> Prof. V.G. Bhide had asked me to prepare a draft of a letter to be sent by
> Shri M.K. Kaw, Education Secretary to Dr. R.A. Mashelkar, Director
> General, CSIR. I have prepared the following draft in hurry. As I will
> be out of station for the next few days, I will appreciate if you could
> improve or revise it and send to me.
>
> Govind
>
> ---
>
> REF:NCRA:PU: 2000 23rd October 2000
>
> Dr. R.A. Mashelkar
> Director General
> Council of Scientific & Industrial Research
> nusandhan Bhawan
> 2, Rafi Marg
> New Delhi-110 001
>
> Dear Dr. Mashelkar,
>
> 1.A Proposal has been made for establishing the Advanced Centre
> for Science & Education (ACSTE) by senior scientists,
> academicians and industrialists in Pune for carrying out a five
> year integrated M.Sc. & M.Tech programme for educating and
> training talented and motivated students for many scientific
> labs. and industries. The programme for ACSTE has been proposed
> to fill the existing lacuna of the scientific education in India
> particularly at the under-graduate level. Both teaching and
> research will be carried out simultaneously throughout the 5-year
> period so that the students are able to participate in
> challenging scientific and technical endeavours as required for
> the progress of India. Executive Summary about the ACSTE is
> enclosed (Enclosure-A). A copy of the detailed proposal
> long with the list of signatories is also enclosed.
>
> 2.The ACSTE proposal has been strongly endorsed by all the seven
> major scientific agencies in two inter-agency meetings. MHRD has
> agreed to be the nodal agency for ACSTE. MHRD will also seek
> Deemed University status for ACSTE from the beginning. EFC memo
> has also been prepared.
>
> 3.It is highly desirable that ACSTE be located close to the Pune
> University and various research institutes which are situated in
> its vicinity. The ACSTE team has proposed that it would be of
> great importance if ACSTE could be established in about 30 Acres
> of land, which is available in the National Chemical
> Laboratory(NCL). Director, NCL has shown his willingness for the
> same. Since the programme of ACSTE would be of considerable
> importance to NCL and various labs of CSIR, there will be a close
> liaison between the ACSTE and CSIR, which will be of great
> importance.

[Doc. 42 : 2 pages] 42/1

>
> 4. The proposal has also been discussed with Dr. A.P.J. Abdul
> Kalam, Member, Planning Commission and Shri Venkatasubramani,
> Member, Planning Commission. The latter has stressed the need to
> identify the required land for ACSTE. I would deeply appreciate

> If CSIR approves our proposal at an early date and allots us the
> land. We would consider the allocation of the land as a
> contribution by CSIR to ACSTE.
>
> With regards,
>
> Yours sincerely,
>
> (M.K. Kaw)
> Education Secretary
>
> Encl:as above

My Dear Govind,

I don't think I can improve this draft. I think even if Mr.Kaw sends this letter, we would achieve a great deal.

I think we have now to address our concerns to the Minister. The big hold up is to convince him. The secretariat of MHRD is with us... but the minister does not seem to be convinced yet. Who can work on him is the question. Are all the science secretaries willing to write to him separately to say that the scientific agencies need ACSTE? Even a few letters from people like Mashelkar, Ramamurthy, Manju Sharma, Kasturi Rangan and Kakodkar could do the trick. Are they convinced you think of the need for ACSTE?

Prabhakar

Doc. 42/2

A note suggesting actions requested from Dr. A.P.J. Abdul Kalam, Principal Scientific Adviser, Govt. of India. –
Decisions of Science Departments on the ACSTE Project

1 Dr. Kalam may kindly convene a meeting of secretaries of science departments, with the Education Secretary, along with the VC, Pune University and representatives of the sponsors of ACSTE proposal.

2. This meeting should reaffirm the urgent need of taking new and novel initiative for developing a pool of highly talented, highly motivated and highly skilled human resources. This resource pool would be needed to man and lead research groups in national research laboratories, agencies and in industries. The decision to set up Advanced Centre for Science and Technology Education as proposed in the project document to meet the above requirement should also be endorsed.

3. It should strongly recommend the setting up of the ACSTE as an autonomous society sponsored by science agencies to ensure full autonomy and flexibility. It should also recommend the status of a "deemed university" to ACSTE as proposed by MHRD.

4. Since ACSTE will be sponsored by science agencies essentially for their benefit, each of these agencies should earmark funds in their respective budgets for ACSTE. Formula for funding by these agencies should be evolved in the joint meeting of the secretaries of Science departments. In much the same way, these agencies could provide reasonable assurance to the products of the ACSTE that subject to certain minimum attainments, they would be provided with jobs in the establishments under these agencies.

5. The above recommended actions would facilitate the early establishment of the Inter agency sponsored ACSTE.

Doc. 43 : 1 page 43/1

UNIVERSITY OF PUNE पुणे विद्यापीठ

PROF. V. G. BHIDE
F.N.A.F.A.Sc. F.N.A.Sc.

School of Energy Studies
Physics Department,Pune - 411 007
Phone : (91 20) 5655201
Fax : (91 20) 5653899
E-mail : vgb@physics.unipune.ernet.in

ऊर्जा अभ्यास प्रणाली
पदार्थ विज्ञान विभाग पुणे- ४११ ००७
फोन - (९१ २०) ५६५५२०१
फॅक्स - (९१ २०) ५६५५२०१
ई-मेल - vgb@physics.unipune.ernet.in

- Former Scientist (Director Grade) National Physical Laboratory, New Delhi.
- Former Vice Chancellor, University of Pune.
- Former Director, Inter University Consortium
- Emeritus Professor, University of Pune.
- CSIR Emeritus Scientist.

SES/VGB/ 261
November 8th ,2000

Dear Dr. (Mrs.) Manju Sharma,

Professor Arun Nigavekar, the then Vice-Chancellor of Pune University has appointed a committee under my chairmanship to pursue the ACSTE project (copy enclosed). I am writing this letter as the chairman of that committee in connection with the ACSTE project.

As you are aware that the Department of Education, Ministry of HRD, has agreed to be the nodal ministry for the ACSTE project and has made an allocation of Rs. 50 lakhs for initiating preparatory action. It was also agreed at the inter-agency meeting that each of the sponsoring science departments would make available a sum of Rs. 10 lakhs for preparatory action. Indeed your department was prompt enough to assure the University of Pune that the DBT would gladly suppor the proposal of establishing ACSTE as an autonomous body and also to provide core funds to the cenre. (copy of a letter from Dr. Balasubramanian to the Vice-Chancellor, University of Pune, dated 6th December, 1999, is enclosed for refernece).

I am writing this letter requesting you to sanction a sum of Rs. 10 lakhs to the University of Pune for initiating preparatory action. I am glad to inform you that NCL (CSIR) has agreed to make available 30 acres of their land for housing ACSTE. Similarly, Southern Command of the Indian Army has agreed to make available 40 acres of Defence land adjoining the University campus for various activities of ACSTE. EFC Memo for ACSTE has been prepared and sent to the Secretary, Department of Education, Government of India, for their approval. It is hoped that the necessary clearance will be obtained very shortly.

We are establishing the ACSTE project office and have already initiated some preparatory action pending the formation of ACSTE as an autonomous society.

The committee and the University of Pune will be grateful if your sanction of Rs. 10 lakhs towards preparatory action is communicated to the University of Pune at an early date.

With kind regards,

Yours sincerely,

V. G. Bhide

Dr. (Mrs.) Manju Sharma
Secretary, Department of Biotechnology

Doc. 44 / 1 page 44/1

Res. : Flat No. 5 & 6, C/2, Kumar Classics, Aundh, Pune - 411 007. Tel No. (91 20) 382920

National Centre for Radio Astrophysics
TATA INSTITUTE OF FUNDAMENTAL RESEARCH

NCRA, PUNE UNIVERSITY CAMPUS, POST BAG NO.3, GANESHKHIND, PUNE 411 007, INDIA
Telephone: (020) 565 6111; Gen. 565 7107, 565 1384-5; Res. 5899030 Fax: 565 5149
Telex: 0145-7658 GMRT IN; Gram: RASTRON; Email: gswarup@ncra.tifr.res.in

NCRA • TIFR

Prof. Govind Swarup, F.R.S.
Homi Bhabha Senior Fellow
Ex-Director, NCRA/GMRT

REF: NCRA:TIFR:PU

14th December 2000

Prof. Murli Manohar Joshi
Minister for Human Resources Development
Ministry of Human Resource Development
Department of Education
Government of India
Shastri Bhawan
New Delhi-110 001

Dear Prof. Joshi,

1. We would be very grateful to you if you could kindly give us an appointment on any date convenient to you for discussing the proposal for setting up the Advanced Centre for Science, Technology and Education (ACSTE) at Pune. You may kindly recall your visit to Pune in March 1999 when we had discussed with you the above proposal to be set up in close collaboration with the University of Pune as well as all the major science agencies such as DST, DBT, DAE, ISRO, CSIR, DRDO etc. with the Department of Education, MHRD acting as a nodal agency.

2. ACSTE has been conceived and concretized with the help of scientists drawn from all over the country and also representatives of major industries in Pune, taking into consideration the lacunae in the present system of education and the opportunities and challenges that will arise in the emerging global scenario.

3. The objective in setting up ACSTE is to turn out a band of highly trained, highly motivated and highly skilled young boys and girls who would man and lead research groups in strategic and nationally important areas. This is sought to be achieved by providing for a five year integrated course leading to M.Sc./M.Tech. Degrees. Integration is sought to be achieved in respect of time and discipline. It attempts to integrate teaching and research, pure and applied sciences throughout the programme. One of the unique features of ACSTE is its internship programme during the 5th year whence students will carry out research and development programmes either in industries or in R & D laboratories of various science agencies.

4. The proposal has been strongly endorsed in two Interagency meetings, firstly convened by Secretary, DST and then by Secretary, Department of Education, MHRD.

Doc. 45 / 2 pages 45/1

NCRA • TIFR

5. The proposal for setting up of ACSTE is in line with your pioneering initiatives such as institution of Shyma Prasad Mukherjee fellowships, KishoreVaigyanik, Fellowship and several others. Indeed the selected Shyma Prasad Mukherjee fellows and Kishore Vaigyanik could be nourished and nurtured at ACSTE, so that they can flower to the best of their potential.

6. In this connection, we would be grateful if you could kindly give us an appointment on any date convenient to you. You may also consider inviting Secretary, DBT, Secretary, DST, Director General, CSIR and Secretary, Dept. of Education, MHRD at this meeting.

With best regards,

Yours sincerely,

(V.G. Bhide)
Professor Emeritus &
Ex-Vice-Chancellor,
University of Pune

Govind Swarup

(Govind Swarup)
Homi Bhabha Senior Fellow
Ex-Director, NCRA/GMRT

Doc. 45/2

NCRA • TIFR

National Centre for Radio Astrophysics
TATA INSTITUTE OF FUNDAMENTAL RESEARCH

NCRA, PUNE UNIVERSITY CAMPUS, POST BAG NO.3, GANESHKHIND, PUNE 411 007, INDIA
Telephone: (020) 565 6111; Gen. 565 7107, 565 1384-5; Res. 5899030 Fax: 565 5149
Telex: 0145-7658 GMRT IN; Gram: RASTRON; Email: gswarup@ncra.tifr.res.in

Prof. Govind Swarup, F.R.S.
Homi Bhabha Senior Fellow
Ex-Director, NCRA/GMRT

REF:NCRA:TIFR:ACSTE

19th December 2000

Prof. V.S. Ramamurthy
Secretary
Ministry of Science and Technology
Department of Science and Technology
Technology Bhavan
New Mehrauli road,
New Delhi-110 016

Sub: Advanced Centre for Science, Technology & Education (ACSTE)

Dear Prof. Ramamurthy,

1. I enclose a copy of the letter that myself and Prof. V.G. Bhide have sent to Prof. Maurli Manohar Joshi, Hon Minister for Human Resources Development seeking appointment with the minister on any date and time convenient to him. I also enclose a copy of the letter that I had sent to Dr. (Mrs.) Manju Sharma for getting us an early appointment.

2. We request you to take an early decision and sent us the letter to utilize the unspent amount (approximately Rs. 6.50 lakhs out of Rs. 10.00 lakhs which DST has approved for ACSTE about two years ago. We would like to use the above unspent amount for taking various actions for establishment of ACSTE, including its sanction by the Government.

With best regards,

Yours sincerely,

Govind Swarup.

(Govind Swarup)

Encl:as above

Doc. 46 : 1 page 46/1

National Centre for Radio Astrophysics
TATA INSTITUTE OF FUNDAMENTAL RESEARCH

NCRA, PUNE UNIVERSITY CAMPUS, POST BAG NO.3, GANESHKHIND, PUNE 411 007, INDIA
Telephone: (020) 565 6111; Gen. 565 7107, 565 1384-5; Res.589030 Fax: 565 5149
Telex: 0145-7658 GMRT IN; Gram: RASTRON; Email: gswarup@ncra.tifr.res.in

NCRA • TIFR

Prof. Govind Swarup, F.R.S.
Homi Bhabha Senior Fellow
Ex-Director, NCRA/GMRT

REF:NCRA:TIFR:ACSTE

19th December 2000

Dr. (Mrs.) Manju Sharma
Secretary
Ministry of Science & Technology
Dept. of Biotechnology
Block-2 (7th Floor) CGO Complex
Lodi Road
New Delhi-110 003

Sub: Advanced Centre for Science, Technology & Education (ACSTE)

Dear Dr. Sharma

I enclose a copy of the letter that myself and Prof. V.G. Bhide have sent to Prof. Maurli Manohar Joshi, Hon Minister for Human Resources Development, as per the discussions in your office about two weeks ago. We would be grateful if you could kindly get us an appointment on any date and time convenient to the Hon'ble Minister.

Thanking you,

Yours sincerely,

Govind Swarup

(Govind Swarup)

Encl: as above

Doc. 47 : 1 page 47/1

A NOTE SUBMITTED TO THE WORKING GROUP ON SCIENCE & TECHNOLOGY MANPOWER DEVELOPMENT

16|3|2001

G. Swarup
Homi Bhabha Senior Fellow
NCRA-TIFR, Pune University Campus,
Pune-411 007

1. In my view one of the urgent problems is to upgrade the Science Education in the undergraduate colleges. Good education at the B.Sc. level is essential for providing talented manpower for a large number of research institutions under the Government agencies as well as increasing number of private firms with R & D labs. Further, it is important to note that a large number of B.Sc. students become science teachers in tens of thousands of high schools and also a large number with M.Sc. degrees become college teachers. On the other hand brighter students are shying away from joining B.Sc colleges and rather prefer to take engineering degrees, even if it is in a second rate engineering college and with subjects such as civil or electrical engineering which is not their preferred choice.

2. We need several bold solutions to attract brighter students to the science stream and to correct the poor education in science colleges. We need to provide practical skills to science graduates and make these degrees career oriented. I would like to make several suggestions.

3. Prime Minister & Planning Commission should ask all science agencies, such as CSIR, DAE, DBT, DIT, DRDO, DST, ISRO, ONGC and leading industries to spend 1% out of their allotted R & D budgets for (a) upgrading undergraduate laboratories and (b) closer interaction between (i) teachers and students in colleges and (ii) research scientists in the industries and scientific institutions. Each science agency should select a few degree colleges not far away from their research laboratories. Further, the above Research laboratories may consider establishing a Computer Aided Science Education Centre in which selected students may be given supplementary lectures and practical training by leading scientists and engineers from 5.00 p.m. to 7.00 p.m. or so, for three times/week during their three year B.Sc. course work. The programme and syllabus may be centralized with different agencies specializing in different subjects. At

Doc. 48 3 pages 48/1

the end of the 3-year supplementary programme, these students may be given a special diploma by DST or by a suitably identified agency, say in "Physics & Physical Engineering", "Chemistry & Chemical Engineering" and so on

4. Also, Universities with approved Advanced Centres of UGC must also admit about 40 students at under-graduate level.

5. Although there may be some existing programmes for continuing education of science teachers who are working in undergraduate colleges, it would be of great value if such programmes are fostered and strengthened. Science teachers may also be encouraged to participate in research activities in research institutions and national laboratories. Suitable schemes may be developed for the purpose.

6. For long we have considered that UGC & AICTE will ensure quality education in India. But, we have a serious lacunae in the Indian education. Affiliated colleges, universities, research institutes and industry are each an island by themselves. We need to take some bold steps to correct the situation. We must note that INDIA CANNOT PROGRESS TO ITS POTENTIAL WITHOUT SCIENCE. Ever since Kothari Commission there have been numerous reports but their impact has been negligible. What we need is not more reports but their implementation. We need to evolve rules and regulations which should ensure a closer interaction between educational, research and industrial establishments though a policy of sticks as well as carrots.

7. It would be valuable if science degrees could be made more career oriented e.g. introducing a 4-year degree course called Bachelor in Science & Engineering (B.S.E.) with a course work of 3 years in Science and one year specialization in Engineering in the chosen field of career. Such a degree is likely to encourage growth of experimental science in India. IITs help may be taken in chalking out a suitable course work. Such a programme should be "centrally administered" by a consortium of science agencies, in selected colleges.

8. Further, a few advanced centres for science and technology should be set up for a 5-year integrated M.Sc. degree in close collaboration with the Science Agencies.

Doc. 48/2

Students in such centres may be exposed to both learning as well as research throughout the period, with 5th year spent in one of the leading research labs in scientific and industrial establishments.

9. N.T.S. scholarship should be continued only if the students join B.Sc. colleges.

10. Enhance scholarships for those pursuing a Ph.D. degree in Science or Engineering.

11. Over the last five decades, India has built up a good infrastructure in various scientific fields. It is necessary to build upon it and stop the present degeneration which is taking place in many institutions due to lack of young scholars and scientists. The wide spread perception that Indian science is in deep trouble as highlighted by the Indian Academy of Science as well as in various articles in press. needs to be taken note by the Science Agencies and suitable corrective steps initiated urgently, which should be discussed widely, e.g. an article in Current Science.

G. Ramaswamy
16/3/01

b. DOL 4/3

hck/misc1.doc

National Centre for Radio Astrophysics
TATA INSTITUTE OF FUNDAMENTAL RESEARCH

NCRA, PUNE UNIVERSITY CAMPUS, POST BAG NO.3, GANESHKHIND, PUNE 411 007, INDIA
Telephone: (020) 565 6111; Gen. 565 7107, 565 1384-5; Res. 5899030 Fax: 565 5149
Telex: 0145-7658 GMRT IN; Gram: RASTRON; Email: gswarup@ncra.tifr.res.in

NCRA • TIFR

Prof. Govind Swarup, F.R.S.
Homi Bhabha Senior Fellow
Ex-Director, NCRA/GMRT

REF:NCRA:ACSTE:2001 3rd April 2001

To

Prof. A.S. Kolaskar
Vice-Chancellor
University of Pune
Pune University Campus
Ganeshkhind,
Pune-411 007

Dear Prof. Kolaskar,

1. I was delighted to know from Prof. V.G. Bhide that the Government has transferred Rs. 50.00 lakhs for taking initial steps for setting up of the Advanced Centre for Science, Technology & Education (ACSTE). We look forward to get a letter from Mr. Kaw.

2. I would like to congratulate you for getting the above grant. It is a good omen during your first month as Vice-Chancellor !

3. As you are aware that Prof. V.G. Bhide, yourself, myself and many others have been very concerned about science education at the undergraduate level. The Big challenge is to attract some of the talented students to take up a science stream rather than pure engineering. By offering a flexible combination of science and engineering courses, we may be able to meet the aspirations and career plans of talented students. I enclose copy of a note that I had submitted recently to a committee headed by Dr. Mashelkar.

With best regards.

Yours sincerely,

Govind

(Govind Swarup)

Encl:as above :

Doc. 49 : 3 pages P-49/1

16/3/2001

CERTAIN IDEAS FOR THE IMPROVEMENT OF HIGHER EDUCATION IN UNDER-GRADUATE COLLEGES AND UNIVERSITIES IN INDIA

THIS IS A BRIEF NOTE FOR PROJECTING CERTAIN VIEWS

A Note submitted to a Committee headed by Dr Mashelkar

1. We should give high importance to improvement of under-graduate science education using multi-media packages for students as well as teachers. There is a need for developing a cell for computational aided science education. With this aim a programme has been initiated in three under-graduate colleges in Pune as per the Enclosure-I (see enclosed prospectus).

2. Various national laboratories should be asked to adopt certain under graduate as well as graduate colleges in their cities for bringing 30 or 40 students to the laboratories on off-Saturdays. Talented research scientists should be encouraged to teach these students through their self-motivation as well as suitable awards and a bit faster promotion for participating in such a programme. Students evaluation should be used to ensure that the programme is being carried out with responsibility.

3. A brief note is also enclosed regarding proposed Advanced Centre for Science and Technology (ACST) for carrying out a 5-year integrated M.Sc teaching programme (Enclosure-2). It is proposed that ACST be supported by the participating science and technology ministries and also Industries so that there is no burden on the UGC. There has been a favourable response from the Govt. and we are now in the process of writing a detailed project document for the Department of Science & Technology. A similar programme could be carried out in other places in India.

4. It is very important that we should stop mass migration of top talented persons from India. These scientists and engineers are indeed our Kohinoor diamonds. We are exporting tens of thousands of our stars and jewels from India freely. Our scientific

p. Doc. 49/2

Students in such centres may be exposed to both learning as well as research throughout the period, with 5th year spent in one of the leading research labs in scientific and industrial establishments.

9. N.T.S. scholarship should be continued only if the students join B.Sc. colleges.

10. Enhance scholarships for those pursuing a Ph.D. degree in Science or Engineering.

11. Over the last five decades, India has built up a good infrastructure in various scientific fields. It is necessary to build upon it and stop the present degeneration which is taking place in many institutions due to lack of young scholars and scientists. The wide spread perception that Indian science is in deep trouble as highlighted by the Indian Academy of Science as well as in various articles in press. needs to be taken note by the Science Agencies and suitable corrective steps initiated urgently, which should be discussed widely, e.g. an article in Current Science.

G. Ramachandran
16/3/01

hck/misc1.doc

Doc. 49/3

Fax-sent
15
5.4.01

National Centre for Radio Astrophysics
TATA INSTITUTE OF FUNDAMENTAL RESEARCH

NCRA • TIFR

NCRA, PUNE UNIVERSITY CAMPUS, POST BAG NO.3, GANESHKHIND, PUNE 411 007, INDIA
Telephone: (020) 565 6111; Gen. 565 7107, 565 1384-5; Res. 5899030 Fax: 565 5149
Telex: 0145-7658 GMRT IN; Gram: RASTRON; Email: gswarup@ncra.tifr.res.in

Prof. Govind Swarup, F.R.S.
Homi Bhabha Senior Fellow
Ex-Director, NCRA/GMRT

FAX: 080-3415328.

REF:NCRA:ACSTE:PU: 2001 3rd April 2001

Dr. K. Kasturirangan
Chairman
ISRO Headquarters
Antariksh Bhavan
New Bel Road
Bangalore-560 094

Dear Dr. Rangan,

1. I am planning to be in Bangalore from 11th to 14th April 2001 and would very much like to meet you and some of your colleagues to discuss plans for the Advanced Centre for Science, Technology & Education (ACSTE) at Pune.

2. I am glad to inform you that the Government has approved in principle, the setting up of the ACSTE and has already transferred Rs. 50.00 lakhs to the University of Pune. We understand that Prof. M.M. Joshi has raised some queries and we are waiting to get a letter from Mr. Kaw, Secretary, HRD in this connection.

3. As you are aware that our main objective is to train highly talented and motivated students for a 5-year integrated M.Sc./M.Tech. programme with the objective of creating manpower for various Science Agencies and R & D laboratories in Industries in India. These students will come in contact with the best of scientists and engineers in India so that they get motivated to work in India and take up challenging and innovative tasks. With the above objectives it is planned to set up an Autonomous Institute (ACSTE) at Pune in close collaboration with the University of Pune and major Science Agencies and Industries in India. One of the innovative suggestions is that the fifth year will be spent in selected laboratories of the Science Agencies and Industries, who would be contributing to the establishment of ACSTE and also to its teaching and research programmes. There is also hope to develop Computer-Aided Science Education Programmes so that we can network several undergraduate colleges with ACSTE.

4. Since ISRO will be an important pillar of ACSTE, I would like to seek your guidance concerning its aims and objectives and its initial planning.

With best regards,

Yours sincerely,

Govind

(Govind Swarup)

Doc. 50 1150/1

University of Pune

Telephone Nos.
5656061
5650062
5650060
Telegraph : **'UNIPUNE'**
Telex : **0145 7719 UNIP IN**
Fax : **020 5653899**
Ref No.

Ganeshkhind,
PUNE-411007.

Date : 14th May 2001.

Shri. M.K. Kaw
Secretary
Ministry of Human Resources Development
Government of India
Sashtri Bhawan
NEW DELHI 110 001

Dear Shri. Kaw,

Sub : ACSTE

We enclose a copy of a letter to the Hon. Minister, Prof. Murli Manohar Joshi, requesting him to give us an appointment for discussing the above proposal. We would be grateful if you could kindly telephone his Private Secretary, Shri Jain, and get us an early appointment.

Thanking you and with regards,

Yours sincerely,

Prof. V.G. Bhide

Govind Swarup
Prof. G. Swarup

A. S. Kolaskar
Prof. Kolaskar

Encl. : Copy of letter to the Hon. Minister

Doc. 51 | D.51/1

2001 ?

NOTE TO THE NRI GROUP IN USA ON THE PROPOSED ESTABLISHMENT OF GLOBAL INSTITUTE FOR SCIENCE & TECHNOLOGY IN INDIA

1. We, a group of educationists, scientists and industrialists in Pune were extremely excited to read about your great vision for establishing a world class educational and research centre in India, namely the "Global Institute of Science and Technology (GIST). Certainly the proposal is very timely since there is a new resurgence in India and the next decade is likely to be very important in its history.

2. We would welcome the establishment of such an institute in Pune for the following reasons:-

2.1 As a result of initiatives taken by the University of Pune ~~over the last decade~~, four National Centres have been established on the campus of the University of Pune over the last decade viz. (1) the National Centre for Radio Astrophysics of the Tata Institute of Fundamental Research, which is operating the Giant Metrewave Radio Telescope located 80 km North of Pune, (2) Centre for Development of Advanced Computing (C-DAC) (3) Inter-University Centre for Astronomy & Astrophysics (IUCAA) and (4) National Centre for Cell Science. There are several other research centres which are located within a couple of km of the University of Pune including the famous National Chemical Laboratory (NCL) of CSIR..

2.2 The University of Pune has a large campus of about 2 sq. km and its departments of Physics, Chemistry, Mathematics, Biology, Zoology, etc. are well known. Recognizing the importance of a close linkage between teaching and research, and in order to attract the best talent from across India in the field of science and technology and not just engineering, a group of sixteen scientists, educationists and industrialists of Pune had

Doc. 52
3 pages

p. 52/1

submitted a detailed proposal to the Government of India about two years ago for establishing an autonomous "Advanced Centre for Science and Technology Education" (ACSTE) at Pune, which will have a close collaboration with the University of Pune. ACSTE will offer a 5-year integrated M.Sc/M.Tech ~~dual~~ programme with a close linkage with teaching and research and considerable flexibility in syllabus similar to that provided by well known universities in the West. The proposal has been approved in principle by the Government of India recently and a token sum of Rs. 1.00 Crore has been allotted for the year 2000-2001 for taking steps for establishing ~~such centre~~ the ACSTE. An innovative aspect of the proposal is that there will be a close linkage with various science agencies such as CSIR, ISRO, Department of Bio-technology, etc. and major industrial R & D centres in Pune and Mumbai and students will be expected to spend about a year at these laboratories or firms before a degree is awarded to them, so that they are exposed to the best of India.

3. A copy of the Executive Summary of the proposal is enclosed. We plan to put Part-I & II of the Project Report for the ACSTE on the Web over the next one month.

4. We greatly welcome the proposal for GIST ~~as our objectives are similar~~ because but the GIST group will be able to provide adequate funds for attracting talented academic and research staff. We expect that GIST will also take steps for enhancing the quality of education across India by developing high quality distant learning programmes in the field of science and technology.

5. Although Indian scientists and engineers have played an important and vital role in growth of information technology in USA over the last decade and recently in India, there is an urgent need for fostering new initiatives in the ~~important~~ field of science and technology education in India. A recent report of the Indian Academy of Science says " *The standards (of science education) in all respects have declined rapidly and alarmingly and unless something is done soon to remedy the situation, the country is definitely heading for a disaster.* In our zest to create a sound scientific and technological infrastructure as early as possible, we totally ignored the source and the reservoir that

Doc 52/2

feeds into the system of scientific research and technological development namely the science education system: the universities and colleges. We failed to recognize that science education plays a crucial and pivotal role in the alchemy of scientific research and technology development".

6. In summary, we support the proposal for establishment of the Global Institute of Science and Technology in India by a group of Indians in USA in collaboration with the University of California, Berkeley. We may add that many of us in Pune have been educated in California and have close friends working at UC, Berkeley, Stanford, UCLA, UCSD, Caltech, JPL, etc. It may be noted that Dr. C.K.N. Patel, V.C., UCLA got his B.E. degree from Pune and is aware of our interest to foster a closer interaction between teaching and research institutes in India. We would very much like to have a close interaction with the GIST group.

Professor Govind Swarup
Homi Bhabha Senior Fellow
NCRA-TIFR
University of Pune Campus
Pune-411 007, India

Professor V.G. Bhide
Professor Emeritus
& Ex-Vice-Chancellor
University of Pune
University of Pune Campus
Pune-411 007

Prof. A.S.Nigavekar
Vice-Chancellor
University of Pune
University of Pune
Campus
Pune-411 007

Email:

gswarup@ncra.tifr.res.in

vgb@physics.unipune.ernet.in

puvc@unipune.ernet.in

Doc. 52/3

सत्यमेव जयते

प्रो० व. सु. राममूर्ति
सचिव
PROFESSOR V. S. RAMAMURTHY
SECRETARY

भारत सरकार
विज्ञान और प्रौद्योगिकी मंत्रालय
विज्ञान और प्रौद्योगिकी विभाग
टेक्नोलाजी भवन, नया महरौली मार्ग, नई दिल्ली-110 016

GOVERNMENT OF INDIA
MINISTRY OF SCIENCE & TECHNOLOGY
DEPARTMENT OF SCIENCE & TECHNOLOGY
Technology Bhavan, New Mehrauli Road, New Delhi-110 016

D.O. No. DST/Secy/297/2001

July 11, 2001

Dear Dr. Chatterjee,

I would like to bring to your attention that a Group consisting of Senior Scientists, Educationists and Industrialists in Pune, India has submitted a proposal to the Government of India two years ago for setting up the Advance Centre for Science & Technology, which is now named as the Advanced Centre for Science, Technology and Education (ACSTE). As you may be aware that Pune is one of the educational and industrial city in India. In the Pune University campus four major national institutes are situated viz. two in the field of astronomy including one by TIFR, third in the field of computer science (C-DAC) and fourth in the field of Biotechnology. There are also several leading laboratories in Pune such as the National Chemical Laboratory. The proposal of ACSTE is aimed at pooling together all the resources.

Professor Govind Swarup is one of the member of the Core Group of ACSTE. He is the Fellow of Royal Society, London and is also fully responsible for design and construction of the Giant Microwave Radio Telescope near Pune. Professor Govind Swarup is visiting USA for two weeks when he would be in Washington DC from 26th June to 8th July 2001 and again from 5th August to 22nd August, 2001. He would be visiting Berkeley, Stanford, Los-Angeles & Caltech from 9th to 19th July, 2001 He would very much like to discuss ACSTE proposal with one of the members of the GIST group when in USA. He will be glad to send to you a copy of the Executive Summary of the ACSTE proposal.

With best regards,

Yours sincerely,

(V.S. Ramamurthy)

Dr. Purnendu Chatterjee,
The Chatterjee Group,
888, Seventh Avenue,
Suite 3000, New York,
New York 10106 – 0089
(Fax : 00 212 262 0647)

CC: Professor Govind Swarup, Ex-Director, NCRA/GMRT, National Centre for Radio Astrophysics, Tata Institute of Fundamental Research, NCRA, Pune University Campus, Post Bag No.3, Ganeshkhind, Pune – 411 007.

Doc. 53 53/1

Telegram : SCIENCTECH • Telephone : 6510068/6511439
Fax : 0091-11-6863847, 0091-11-6862418 • E-mail : dstsec@alpha.nic.in

187

Folder: Inbox

From: **"Dr. R.A. Mashelkar" <dgcsir@csir.res.in>** **Save Address - Block Sender**
To: gswarup99@hotmail.com **Save Address**
Subject: [Fwd: Reg. Professor Govind Swarup's visit to US]
Date: Fri, 06 Jul 2001 10:35:00 +0530

From: **"Dr. R.A. Mashelkar" <dgcsir@csir.res.in>**
To: arjun.malhotra@techspan.com
Subject: Reg. Professor Govind Swarup's visit to US
Date: Fri, 06 Jul 2001 10:29:03 +0530

No. DG/PS[ ]/2001-
July 06, 2001

Dear Mr. Malhotra,

This letter is to introduce Professor Govind Swarup, one of the India s foremost scientists. Professor Govind Swarup is Fellow of Royal Society, London and pioneered the design and construction of the Giant Metrewave Radio Telescope near Pune, which is India s pride today.

Professor Swarup was a member of the group comprising senior scientists, educationists and industrialists in Pune, who had submitted a proposal to the Government of India two years ago for setting up the Advanced Centre for Science and Technology, which is now named as the Advanced Centre for Science, Technology and Education (ACSTE). As you are aware, Pune is the intellectual capital of Maharashtra and one of the most prominent educational and industrial cities in India. In the Pune University campus, four major national institutes are situated; two in the field of astronomy including one by TIFR, one in the field of computer science (C-DAC) and one in the field of

Doc. 54 : 6 pages Doc 54/1

Biotechnology. There are also several leading laboratories in Pune, such as the National Chemical Laboratory. ACSTE is aimed at pooling together all the intellectual resources of all these centres to create a unique institute.

Professor Swarup is visiting USA for two weeks. He would be in Washington DC from 26th June to 8th July 2001 and will be again there from 5th August to 22nd August 2001. He would very much like to discuss the ACSTE proposal with one of the members of the GIST group, when he is in USA. He will be glad to send to you a copy of the Executive Summary of the ACSTE proposal.

I shall greatly appreciate, if you could kindly email your availability to Dr. Swarup (gswarup99@hotmail.com), with a copy to me.

With warm personal regards,

Yours sincerely,

R.A. Mashelkar

Mr. Arjun Malhotra
Chairman and CEO
TechSpan Inc.
935, Benecia Avenue
Sunny Vale, CA 94086, USA
Fax: 001-408-7329344

Email: arjun.malhotra@techspan.com

Doc 54/2

CC to: Professor Govind Swarup, Email: gswarup99@hotmail.com

Folder: Inbox

From: **"Dr. R.A. Mashelkar" <dgcsir@csir.res.in> Save Address - Block Sender**
To: gswarup99@hotmail.com **Save Address**
Subject: Re. meeting with GIST members
Date: Thu, 05 Jul 2001 11:27:43 +0530

No. DG/PS[ ]/2001-
July 03, 2001

Dear Mr. Khosla,

This letter is to introduce Professor Govind Swarup, one of the India s foremost scientists. Professor Govind Swarup is Fellow of Royal Society, London and pioneered the design and construction of the Giant Metrewave Radio Telescope near Pune, which is India s pride today.

Professor Swarup was a member of the group comprising senior scientists, educationists and industrialists in Pune, who had submitted a proposal to the Government of India two years ago for setting up the Advanced Centre for Science and Technology, which is now named as the Advanced Centre for Science, Technology and Education (ACSTE). As you are aware, Pune is the intellectual capital of Maharashtra and one of the most prominent educational and industrial cities in India. In the Pune University campus, four major national institutes are situated; two in the field of astronomy including one by TIFR, one in the field of computer science (C-DAC) and one in the field of Biotechnology. There are also several leading laboratories in Pune, such as the National Chemical Laboratory. ACSTE is aimed at pooling together all the intellectual resources of all these centres to create a unique institute.

Professor Swarup is visiting USA for two weeks. He would be in Washington DC from 26th June to 8th July 2001 and will be again there from 5th August to 22nd August 2001. He would very much like to discuss the ACSTE proposal with one of the members of the GIST group, when he is in USA. He will be glad to send to you a copy of the Executive Summary of the ACSTE proposal.

Doc. 54/3

I shall greatly appreciate, if you could kindly email your availability to Dr. Swarup (gswarup99@hotmail.com), with a copy to me.

With warm personal regards,

Yours sincerely,

R.A. Mashelkar

Mr. Vinod Khosla
Kleiner Perkins Caufield & Byers
2750, Sand Hill Road
Menlo Park, CA 94025 (USA)
(Fax # +1-415-4213128)

CC to: Professor Govind Swarup, Email: gswarup99@hotmail.com

No. DG/PS[ ]/2001-
July 03, 2001

Dear Mr. Chatterjee,

This letter is to introduce Professor Govind Swarup, one of the India s foremost scientists. Professor Govind Swarup is Fellow of Royal Society, London and pioneered the design and construction of the Giant Metrewave Radio Telescope near Pune, which is India s pride today.

Professor Swarup was a member of the group comprising senior scientists, educationists and industrialists in Pune, who had submitted a proposal to the Government of India two years ago for setting up the Advanced Centre for Science and Technology, which is now named as the Advanced Centre for Science, Technology and Education (ACSTE). As you are aware, Pune is the intellectual capital of Maharashtra and one of the most prominent educational and industrial cities in India. In the Pune University campus, four major national institutes are situated; two in the field of astronomy including one by TIFR, one in the field of computer science (C-DAC) and one in the field of Biotechnology. There are also several leading laboratories in Pune, such as the National Chemical Laboratory. ACSTE is aimed at pooling together all the intellectual resources of all these centres to create a unique institute.

Doc. 54/4

Professor Swarup is visiting USA for two weeks. He would be in Washington DC from 26th June to 8th July 2001 and will be again there from 5th August to 22nd August 2001. He would very much like to discuss the ACSTE proposal with one of the members of the GIST group, when he is in USA. He will be glad to send to you a copy of the Executive Summary of the ACSTE proposal.

I shall greatly appreciate, if you could kindly email your availability to Dr. Swarup (gswarup99@hotmail.com), with a copy to me.

With warm personal regards,

Yours sincerely,

R.A. Mashelkar

Dr. Purnendu Chatterjee
The Chatterjee Group
888, Seventh Avenue
Suite 3000
New York, NY 10106-0089
(Fax # +1-212-2620647)
Email: venkat@del2.vsnl.net.in

192

CC to: Professor Govind Swarup, Email: gswarup99@hotmail.com

No. DG/PS[ ]/2001-
July 03, 2001

Dear Mr. Dham,

This letter is to introduce Professor Govind Swarup, one of the India s foremost scientists. Professor Govind Swarup is Fellow of Royal Society, London and pioneered the design and construction of the Giant Metrewave Radio Telescope near Pune, which is India s pride today.

Professor Swarup was a member of the group comprising senior scientists, educationists and industrialists in Pune, who had submitted a proposal to the Government of India two years ago for setting up the Advanced Centre for Science and Technology, which is now named as

Doc. 54/5

the Advanced Centre for Science, Technology and Education (ACSTE). As you are aware, Pune is the intellectual capital of Maharashtra and one of the most prominent educational and industrial cities in India. In the Pune University campus, four major national institutes are situated; two in the field of astronomy including one by TIFR, one in the field of computer science (C-DAC) and one in the field of Biotechnology. There are also several leading laboratories in Pune, such as the National Chemical Laboratory. ACSTE is aimed at pooling together all the intellectual resources of all these centres to create a unique institute.

Professor Swarup is visiting USA for two weeks. He would be in Washington DC from 26th June to 8th July 2001 and will be again there from 5th August to 22nd August 2001. He would very much like to discuss the ACSTE proposal with one of the members of the GIST group, when he is in USA. He will be glad to send to you a copy of the Executive Summary of the ACSTE proposal.

I shall greatly appreciate, if you could kindly email your availability to Dr. Swarup (gswarup99@hotmail.com), with a copy to me.

With warm personal regards,

Yours sincerely,

R.A. Mashelkar

193

Mr. Vinod Dham
Vice President and General Manager
Carrier Access Business Unit
Broadcom Corporation
16215 Alton Parkway
P.O. Box 57013, Irvine
California 92619-7013 (USA)
(Fax # +1-949-4508710).

Doc. 54/6

CC to: Professor Govind Swarup, Email: gswarup99@hotmail.com

र. अ. माशेलकर, एफ.आर.एस.
महानिदेशक, वै.औ.अ.प.,
एवं सचिव, भारत सरकार
वैज्ञानिक तथा औद्योगिक अनुसंधान विभाग

R.A. MASHELKAR, F.R.S.
Director General, CSIR
& Secretary, Government of India
Department of Scientific & Industrial Research

वैज्ञानिक तथा औद्योगिक अनुसंधान परिषद्
अनुसंधान भवन, 2, रफी मार्ग, नई दिल्ली-110001
COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH
Anusandhan Bhawan, 2, Rafi Marg, New Delhi-110001

DO No. DG/PS [ ]/2001
August 28, 2001

Dear Professor Swarup,

Prof. Murli Manohar Joshi, Hon'ble Minister (S&T) wishes to organize a brain storming session to discuss two specific issues,

i. The draft of Science & Technology Policy – 2001 (STP-2001)

ii. The Indian perspective of the third world strategy on science and technology.

I am writing to invite you, on behalf of the Hon'ble Minister (S&T), to participate in the brain storming session, which will be held on 10th September 2001 at CSIR Vigyan Kendra, Lodi Gardens, Gate No. 2, New Delhi. The session will begin at 10.30 a.m. and will last upto 4.30 p.m. The background of this brain storming session is as follows:

1. After the Scientific Policy Resolution of 1958 (SPR-58), and the Technology Policy Statement of 1983 (TPS – 83), India has not made any formal statement. It has been decided that we embark upon a new Science and Technology Policy (STP-2001), fully realizing that there is no high technology without high science and vice versa. A draft of STP-2001 has now been prepared which the Hon'ble Minister (S&T) would like to discuss widely before it is adopted. This draft will be sent to you by Secretary, Department of Science & Technology (DST) sometime later during this month.

2. The Third World Academy of Sciences (TWAS) will be holding the TWAS 8th conference during 27th – 31st October, 2001 in New Delhi. The conference will bring together several leaders of science from the Third World. It is felt that we should develop a perspective of the third world strategy on S&T. More particularly, we could develop and project an Indian perspective on how Indian science can show the way for science led development in South.

Doc. 55 : 2 pages 55/1

Telephone : Office : 3710472, 3717053; Residence : 4619651, 4649359; Fax : (91-11) 3710518
E-mail : dgcsir@csir.res.in Gram : CONSEARCH, NEW DELHI

The specific issues which could be discussed in this context, would include, among others,

i. Capacity building in Science and Technology in the Third World and the possible Indian contribution towards this goal.

ii. The issues of new technology revolution and globalization and their impact on the Third World

iii. Equitable access to knowledge; preservation of traditional knowledge and its integration with modern knowledge, fair use of global knowledge for the poor – including the issue of IPR and the third world.

iv. Measures to bridge the digital divide

v. Human Development Report estimates a loss of $ 2 billion per year by migration of its scientists to the developed world. Measures to combat this, such as the creation of 'Intellectual Resource Management Fund'.

I would be grateful if you could kindly accept this invitation to participate in the session. We will, of course, take care of all your expenses associated with your travel and stay.

I look forward to your response.

With warm regards,

Yours sincerely,

[R. A. Mashelkar]

Professor Govind Swarup
INSA Honorary Scientist
National Centre for Radio Astrophysics
Tata Institute of Fundamental Research
NCRA-TIFR, Post Bag 3
Ganeshkhind
Pune – 411007 (Maharashtra)

Doc 55/2

विश्वविद्यालय अनुदान आयोग
नई दिल्ली - 110 002
UNIVERSITY GRANTS COMMISSION
BAHADUR SHAH ZAFAR MARG
NEW DELHI - 110002
OFF : (011) 3239628
FAX : (011) 3231797
E-mail : narun42@hotmail.com

डॉ. अरूण निगवेकर
अध्यक्ष

Dr. Arun Nigavekar
Chairman

D.O. No. F.1-11/2002 (Cm)

7th September, 2002

Dear Dr. Swaroop

The Government of India in approving the Scientific Policy Resolution through the Parliament in 1958, had decided that one of the aims of this policy, amongst others, will be 'to foster, promote, and sustain, by all appropriate means, the cultivation of science, and scientific research in all its aspects – pure, applied and educational."

The policy has been pursued fairly vigorously by successive governments all these years and India could be proud of some of its salient achievements in the areas of agriculture, space, atomic energy, and defence research. However, as science and technology progresses by leaps and bounds, we cannot rest on our past achievements, but would have to be constantly on the vigil to tap new opportunities available for national development and security.

With the opening of the economy, our industry and business would have to face global competition, which would require our goods and services to be of the highest international standards, which can be achieved only through fresh inputs from new and innovative research and development activities. We need young men and women trained in modern areas of related scientific developments.

Unfortunately, our educational institutions, barring a few, are still bogged down by the age old methods and content of scientific education which does not prepare our young graduates for the challenges posed by the real life and modern developments, world wide. Even when we have the young minds curious and anxious to take up scientific careers, very often our educational institutions are not able to offer them the excitement, which sustains their interest in the pursuit of science. This dissuades them from continuing their interests in science and encourages them to take up administrative and commercial professions. While certainly these professions could also benefit from young talent, our scientific agencies and research institutes are not to attract these young minds to some of the nationally challenging programmes of the future.

There is a serious concern expressed that the scientific talent in the national laboratories is not being revitalized by young blood. It is feared that the feeder channel of talent, to be utilized in some of our National programmes of strategic importance, is getting dry. There is no dearth of talent coming out of our school system but by the time they enter the higher education system, their

Doc. 56 : 3 page 56/1

motivation for continuing in the science and technology stream gets dulled. The higher education system is not able to retain the enthusiasm and drive of these potential scientists who would be needed for our national programmes. This is a very serious situation for a country, which has vowed to formulate its national development programmes on the basis of indigenous scientific and technical skills.

A group of scientists and engineers who have been involved in various programmes, recently reviewed this state of scientific talent in India and have come to the conclusion that a new form of science and technology education system has to be created alongside our university system, which will nurture this scientific talent as a part of the overall higher education system, but at the same time, give special emphasis to focusing on the new challenging areas in science and technology where expertise will be required in the near future.

The University Grants commission has decided to establish a few higher education and teaching research institutions to achieve above mentioned objectives by establishing direct tie up with research establishment like CSIR, DST, DBT, Department of Atomic Energy, Indian Space Research Organisation and DRDO. This is going to be a new initiative under the Xth Plan of the University Grants Commission. It has, therefore, been decided to set up a group with the objective of suggesting an operative mechanism to establish advance centers for science education and research in collaboration with research laboratories. I am aware of your very personal interest in such a vital activity and I am requesting you to kindly accept the Membership of the Group and help UGC to bring the above mentioned concept into a reality. The Members of the Group are:

1. Dr. Arun S. Nigavekar
   Chairman, UGC, New Delhi.

2. Dr. K. Kasturirangan
   Chairman, Space Commission &
   Secretary, Department of Space
   Bangalore.

3. Dr. Anil Kakodkar
   Chairman
   Atomic Energy Commission
   Mumbai.

4. Dr. R.A. Mashelkar
   Director General, CSIR
   New Delhi.

Doc. 55/2

5. Dr. (Mrs.) Manju Sharma
Secretary
Department of Biotechnology
New Delhi.

6. Dr. V.S. Ramamurthy
Secretary
Department of Science & Technology
New Delhi.

7. Prof. V.G. Bhide
Department of Physics
University of Pune, Pune.

8. Dr. Govind Swaroop
Emeritus Professor
National Radio Astronomy
Pune.

9. Dr. P. Parkash
Joint Secretary, UGC Officer.

I request you to kindly accept the Membership of the Group and help UGC to achieve the initiative of creating ACST.

With warm personal regards,

Yours sincerely,

(Arun Nigavekar)

Dr. Govind Swaroop
Emeritus Professor
National Radio Astronomy
University of Pune Campus
Pune – 411 007.

Dec. 56/3

विश्वविद्यालय अनुदान आयोग
नई दिल्ली - 110 002
UNIVERSITY GRANTS COMMISSION
BAHADUR SHAH ZAFAR MARG
NEW DELHI - 110002
OFF : (011) 3239628
FAX : (011) 3231797
E-mail : narun42@hotmail.com

SPEED POST

डॉ. अरूण निगवेकर
अध्यक्ष

Dr. Arun Nigavekar
Chairman

D.O.No.F.1-74/2002(Cm) November 27, 2002

Sub: Establishment of higher education teaching and research institutions through direct tie up with research establishments ... UGC initiative in the Xth Plan.

Dear Dr. Govind Swarup,

Kindly refer to my earlier D.O. letter No. F.1-11/2002(Cm) dated 7th September, 2002. I am indeed thankful to you for accepting the membership of the group that was established to consider above mentioned topic. We have now prepared a note with an operative strategy for establishing of Advanced Centres for Science and Technology Education (ACSTE). It is proposed to establish these Centres as autonomous institutions under clause 12 ccc of the UGC Act. This clause allows UGC to establish autonomous institutions for common programmes for the universities in general.

The enclosed note gives details on the establishment, operation and the approach of ACSTE. We may be in a position to establish two or at best three such institutions in the Xth Plan.

If you find the suggestions and the approach as presented in the note appropriate and if you approve of the appointment of a committee, as envisaged in para 15, we can place the entire matter before the University Grants Commission for its approval and bring it at operational level. I may like to say that please feel free to suggest any changes in operative procedure (as indicated in para 15). I am more eager to initiate this activity in collaboration with each one of you, and that too without losing the time, as it has become very urgent to address our concern over attracting best talent to the stream of pure sciences.

I also have had discussion with the Hon'ble Minister on this subject and he is keen to initiate the activity as early as possible. I have therefore taken a liberty of circulating this note for your kind perusal. It is quite likely that the Hon'ble Minister may hold a meeting of all the concerned persons on this matter.

With warm personal regards,

Yours sincerely,

A. Nigavekar

(Arun Nigavekar)

Encl: As above

Dr. Govind Swaroop
Emeritus Professor
National Radio Astronomy
University of Pune Campus
Pune.

Doc. 58 : 4 pages 56/1

V. Sundararaman
Sc Secy
341 6356

krangan@isro.org

202

Ka

UNIVERSITY GRANTS COMMISSION

ADVANCED CENTRES FOR SCIENCE AND TECHNOLOGY EDUCATION

1. Growing concern has been expressed at various times on various for a by scientists, technologists, industrialists, educationists etc., about the continual decline in standards of education at all levels, particularly at the tertiary level, as also on the recent trend of bright boys and girls shying away from science. This has affected the quality of manpower input into our research and development system. In the fifties, we established IITs in different parts of the country as autonomous institutions of national importance. These IITs have done excellent work over the years in technological education.

2. University Grants Commission has been considering for some time the possibility of evolving another model for science and technology education by establishing Advanced Centres for Science and Technology Education on the pattern of IITs but in collaboration with various science agencies of the Government such as Department of Atomic Energy, CSIR, DST, DBT, DRDO, DOS etc., and the industries who would be the beneficiaries of these institutions.

3. UGC proposes to establish to start with a couple of Advanced Centres for Science and Technology Education (ACSTE) as autonomous institutions under clause 12 ccc of the University Grants Commission Amendment Act, 1972, (as further amended in 1984 and in 1985) in close association and collaboration of various science agencies of the Government and industries in the Tenth Plan.

4. These advanced centres will be autonomous societies sponsored by the UGC and registered as such under the Society's Registration Act of 1860 and then subsequently declared as Institutions of National Importance in much the same way the IITs were initially registered as autonomous societies to later become Institutes of National Importance.

5. ACSTEs will have a general body, policy making and monitoring Governing Body and a Scientific Advisory Committee. The Governing Body will be chaired by an eminent scientist/technologist/industrialist nominated by the Chairman, UGC and shall have secretaries of Science Departments of the Government of India or their senior nominees, representatives of Industry and eminent scientists and technologists as members. With a fundamentally different guiding philosophy, ACSTEs will be so structured as to be non-feudal, non-bureaucratic, internally democratic, free and exciting academic institutions devoted to creativity, innovation and entrepreneurship. All academic and scientific matters of ACSTEs will be decided by the faculty committees while the administration will provide the necessary support in purely administrative and financial matters.

Doc. 54/2

6. ACSTEs will provide for an innovative five years integrated programme after the 12th standard leading to M.Sc. degree and in some cases to M.Tech. degree. Such composite science and technology education programmes are the need of the hour because of ever increasingly close dependence of technology on science.

7. ACSTEs through its educational programme will seek to evolve synergy between education and exploration, teaching and research, acquisition of knowledge and its utilization to solve the perceived problems of the society. Thus ACSTEs will perform the twin role of a first rate teaching university and a highly creative and innovative research laboratory.

8. ACSTEs will provide a broad based science and technology education programme with emphasis on (a) acquisition of latest knowledge and information (b) cultivation of various skills and (c) inculcation of attitudes and outlooks to develop social commitment.

9. Students will be admitted to ACSTE after higher secondary examination on the basis of a well designed entrance test followed by interview to assess the candidates ability and aptitude. There will be a common course for all students in the first year. In the first year, students will be exposed to basic physical and chemical principles, mathematical and statistical tools and techniques, computers, details of life processes and present excitement in life sciences. In addition to classroom lectures packed with demonstrations, students will carry out open ended experiments, projects etc. and problem solving tutorials.

10. At the end of the first year, students will opt for either physical sciences, mathematical and computational sciences, or life sciences etc. A large menu of courses in the area of their choice as well from other areas will be offered from which a student can select the required courses with the advice of this faculty adviser. The programme would be so flexible as to permit a student of Ramnujan type who has special insight in a given subject to proceed to progress in his chosen area without imposing on him the conventional course structure.

11. At the end of the third year, there would be aptitude cum ability test to find out the inclination of a student to pursue basic science or applied sciences. After the third year, students will proceed to pursue their field of specialization. The subsequent tow years will lead them to Masters Degree (M.Sc.) in the relevant area. Some bright engineering and technology graduates from other technological institutions will be admitted for two years M.Tech. programmes in some select areas. There will be exist route at the end of third year for those who are unable to pursue this exciting and exacting programme.

12. A distinctive feature of ACSTE will be the internship programme wherein student will spend fifth year and the adjoining summer vacation either in industry for carrying out specific project or in well known research laboratory for some specific research project or with an eminent scientist/technologist.

Doc. 54/3

13. The success of ACSTE will depend critically on the faculty. Extreme care will be exercised in selecting the very best from within the country and abroad. It is only the best that will teach. There will be a (a) core faculty, (b) joint appointees from neighbouring university, research and development laboratories, (c) visiting faculty form national laboratories and prestigious research institutions and (d) adjunct faculty from industry.

14. ACSTEs will forge links with industry and secure participation of the industry not only in sponsoring them but also in their functioning, funding etc. Members of the faculty will be encouraged to evolve working arrangement and strategic alliances with industry. Faculty will work at frontiers of science and at the cutting edge of technology.

15. UGC will nominate a committee consisting of Secretaries of science departments of the Government or their nominees, a couple of members of the UGC to recommend to Chairman such places at which ACSTEs could be established, following the guidelines similar to those given as under:

    (i) ACSTEs should be in close proximity with a dynamic and progressive university so that some of the unique features of ACSTE could percolate within the university system and the faculty in the university could take advantage of the flexible and academic environment of ACSTE for their academic advancement.

    (ii) There should be a number of research and development laboratories of the Government at the place or in close vicinity.

    (iii) The response and willingness of the local industry to support ACSTE.

16. Major funding for the ACSTE will come from the UGC but its success will largely depend upon funding from science agencies either for infrastructure or project funding or both, as well as from industry through endowments and research and development collaboration.

Doc. 57/4

Date: Tue, 29 Apr 2003 13:26:40 +0530 (IST)
From: Govind Swarup <gswarup@ncra.tifr.res.in>
To: Dr.S.R.Jain <srjain@apsara.barc.ernet.in>
Cc: Govind Swarup <gswarup@ncra.tifr.res.in>
Subject: ACST Exective Summary

Dear Dr Jain
As I wrote to you that the Govt has approved setting up 4 such institutes which we proposed from Pune 5 yrs ago. The first one would be in Pune and perhaps at Allahabad.The enclosed document is a summary from our extensive document. We hope that it would admit the first batch of students in July 2004, to begin with only 40 or 80 or so.
Govind

Subject: ACST Exective Summary

Executive Summary

1. The proposal to establish Advanced Center for Science and Technology (ACST) is a well thought out response to the growing concern expressed by the scientific community, science administrators, educationists and industrialists. on the continual decline of the standard of science education at all levels on the one hand and on the other the growing urgency to make available within the country an adequate supply of well qualified and highly motivated scientists and technologists to participate in the national development and in strategically important projects and to face challenges and seize tremendous opportunities that the emerging global scenario dominated increasingly by S and T is likely to offer.

2. The proposed ACST is a new and novel initiative, new in many ways, to produce highly qualified, highly skilled and highly motivated young boys and girls to man and lead research and development activities in national scientific agencies, national laboratories, industries and universities. ACST will play a twin role of a first rate teaching institute and a flourishing and exciting research establishment.

3. Besides providing research facilities at the frontiers of science and at the cutting edge of technology in chosen fields, ACST will offer a five year integrated education programme leading to M.Sc. degree and in some cases to M.Tech. degree. The integration is sought to be accomplished in terms of time and disciplines, education and exploration, teaching and research, acquisition of knowledge and the ability and capacity to use that knowledge for solving societal problems. The assigned role of the proposed ACST is a result of our firm conviction that the most effective and efficient form of teaching comes from discussion with peers and happens when teaching and learning are viewed as an adventure in discovery. There is perhaps no grater stimulant for young minds than to see discoveries and inventions occurring in their midst and in their presence.

4. ACST will offer a large menu of courses from which students could choose according to their liking and aptitude in consultation with a faculty advisor. The choice of courses will not be restricted to any conventional streams, but will also be available across the streams and beyond. In case of exceptional students like those of Ramanujam type, who demonstrate special insight in any given discipline, the formal course structure will not be imposed on them and they would be encouraged to pursue their own discipline at their pace.

5. The teaching and research activities of ACST will be centred around four schools namely (a) School of Basic Sciences, (b) School for Information Science and Technology, (c) School of Advanced Materials and (d) School of Life Sciences and Biotechnology.

6. Admission to the academic and research programmes in ACST will be based on merit and merit alone. In the case of teaching programmes, merit at the entrance will be determined on the basis of performance of a candidate at a well designed national competitive examination.

7. There will be common course for all students in the first year. In the first year students will be exposed to basic physical principles, mathematical tools and techniques, computers and computational techniques, basics of life processes and the current excitement in life sciences. In the laboratory, students will be enabled to learn various skills and

Doc. 58 : 3 pages 57/1

techniques and carry out open ended investigations. At the end of the first year, there will be a rigorous year-end examination to assess students ability to cope with this exacting and exciting programs.

8. In each of the courses, there will be emphases on (a) acquisition of latest knowledge and information, (b) cultivation of all kinds of skills and development of competence in related techniques and (c) inculcation of desired attitudes and outlooks conducive to social commitment. Besides classroom lectures packed with demonstrations, laboratory courses conducted in research laboratories will lay emphasis on learning of skills and techniques, open ended investigations, projects rather than on stereotyped experiments with known end products.

9. At the end of the first year, students will indicate their choice by opting for courses from amongst a large menu of courses in consultation with a faculty advisor. At the end of the third year, there will be aptitude cum ability test to find out students aptitude for further studies in basic sciences or in applied sciences.

10. After successful completion of the three year programme, a student will proceed to study for another two years in their chosen field of specialization. Unique feature of the ACSTs academic programme is the internship programme in the last semester and in the adjoining summer vacation. During the internship period, a student will carry out a research or development project in any of the laboratories of science agencies such as DAE, ISRO, DRDO, CSIR etc, or in an industry. In case of students pursuing basic sciences, they will spend their internship programme with an eminent professor in their discipline and in reputed research laboratory like IISc, TIFR, etc.

11. In some special cases, engineering and technological graduates having B.E. or B.Tech. degree will be admitted for their two year M.Tech. programme in the three schools namely (1) School for Information Science and Technology, (2) School for Advanced Materials and (3) School of Life Sciences and Biotechnology.

12. ACST will function in the partnership and collaborative mode. Various science agencies, research laboratories, and industries have contributed to the conceptualization and concretization of ACST. They will also collaborate in the functioning, funding and monitoring of ACST. ACST will have a core staff and an almost equal complement of joint appointees from local R and D institutions and the university, visiting faculty from prestigious research laboratories and universities in the country and adjunct faculty from industries. This staff structure has been evolved on the basis of our concern that the students in the ACST must be taught by the very best that the country can afford.

13. ACST will be set up on and around the campus of the University of Pune where it will have the advantage of the major national facilities such as IUCAA, NCRA, NCCS and C-DAC and the university itself in its neighborhood. Initially, the ACST will be set up as an autonomous society sponsored by its likely beneficiaries such as national science agencies, national laboratories, universities and industries. As in the case of Indian Institutes of Technology which were initially set up as autonomous societies and were subsequently declared as Institutes of National Importance through an act of Parliament, ACST will also be in due course declared as Institute of National Importance through an appropriate act of Parliament. It is recommended that in view of the nature of ACST and the nodal role played by DST in the Govt. for all matters connected with science and technology, that DST should be the administrative ministry for ACST.

14. As a society, it will have its General Body, Governing Body, Academic Advisory Committee, Academic Faculty, Committees on courses etc. Director of ACST, chosen with due care, on the basis of his/her eminence and the qualities of academic and administrative leadership, will be the chief academic and administrative head of ACST.

15. Till such time ACST is not declared as an Institute of National Importance, ACST will be affiliated and recognized by the University of Pune for its academic and research degrees. Indeed, Management Council of the University vide its resolution dated 27th January 1999, has approved the setting up of ACST on and around its campus as an autonomous society with full academic, administrative and financial autonomy.

Doc. 57/2

16. Being on the campus of the university, ACST will have special relationship with University of Pune. Through mutually agreed Memorandum of Understanding they will use each others human resource and infrastructure on mutually agreed terms. Indeed the symbiotic relation between the University and ACST will be based on the concept that University will help ACST to grow and ACST will enable the University to develop. Indeed ACSTwith its flexibility and autonomy will provide a mechanism for the faculty of the University to overcome the constraints on their functioning and growth that normally operate in a conventional university.

17. ACST will develop over the years to its full stature. The enrolment of students in the first few years will be limited to 150 per year and this will grow over the years, but in no case it will exceed 300. Similarly,at any given point of time, there will be no more than 200 research students, postdoctoral etc. The faculty strength is also not expected to exceed 200-250.

18. The financial implication for the first five years on account of ACST has been estimated at Rs. 52 crores. An unique feature of ACST of having close links with the likely beneficiaries, such as science agencies like DAE, DOS/ISRO, DRDO, DST, DBT, CSIR, DOElectronics, MHRD, etc. and Industries in evolving the concept, its functioning, monitoring etc., all these agencies would finance ACST in accordance with mutually agreed sharing formula. This can be done through a one time grant of Rs 150 crores by these Govt. agencies and the creation of an endowment of Rs. 50 crores by the industries in the first five years. Alternatively, these agencies and industries could fund ACST on a yearly basis. Funding of ACST by international agencies, by a developed country or a consortium of countries, or a group of Non Resident Indians can also be explored. With its unique concept, philosophy and structure of ACST is expected to create a new ethos in the field of sciences education resulting in a renaissance in science and technology in the country.

Doc. 57/3

CONFIDENTIAL

UNIVERSITY GRANTS COMMISSION
BAHADURSHAH ZAFAR MARG
NEW DELHI-110 002

Minutes of the 409th meeting of the University Grants Commission held on 9th April, 2003.

The following were present:-

1.	Prof. Arun Nigavekar	Chairman
2.	Prof. S.K. Joshi	Member
3.	Prof. B.H. Briz-Kishore	Member
4.	Prof. Sureshwar Sharma	Member
5.	Prof. Vasant Gadre	Member
6.	Prof. Ashok Kumar Gupta	Member
7.	Dr. G. Karunakaran Pillai	Member
8.	Dr.(Ms.) Aruna Goel	Member

Shri S.K. Tripathi, Secretary (S & HE) Ministry of Human Resource Development, Shri Dinesh Chander Gupta, Secretary (Expenditure) and Prof. G. Mohan Gopal could not attend the meeting.

Shri Ravi Mathur, Joint Secretary, Ministry of Human Resource Development and Shri S.S. Sharma, Director (Finance), Ministry of Human Resource Development attended the meeting as special invitees.

While dealing with Administrative agenda items, all the Non-Commission Members were requested to withdrawn from the meeting.

Following officers of UGC also attended the meeting:

Secretary
Prof. Ved Prakash

Additional Secretaries
Dr. T.R. Kem
Dr. Gurbaksh Singh

Director (Admn./Meetings)
Dr. P.S. Rajput

Doc. ~~58~~ 59 : 2 pages 58/1

Joint Secretary (Finance)
Dr. C.S. Meena

vi) *Keeping in view the Disability Act 1995, the Universities be informed that at least one post be reserved for physically disabled persons out of the posts being approved for the X Plan by UGC.*

Action: JS(Plan)

Extracts taken from the minutes of the 409th meeting of the U.G.C. held on 9th April, 2003

7.03: To consider the establishment of Institutes for promoting quality, teaching and research in Basic Sciences: UGC initiative in collaboration with other scientific agencies in the X[th] Plan.

The Commission agreed, in principle, for establishment of Institutes for promoting quality, teaching and research in Basic Sciences in collaboration with other scientific agencies in X Plan.

The Commission further agreed that the Centre for Studies in Integrated Sciences be established at the following places:

(i)	*East:*	*At Bhubneshwar in the proximity of Utkal University*
(ii)	*West:*	*At Pune in the proximity of University of Pune*
(iii)	*North:*	*At Allahabad in the proximity of Allahabad University*
(iv)	*South:*	*At Chennai in the proximity of Anna University*

The Commission further decided that a High Power Committee be constituted by the Chairman to work out the details about the establishment of these Centres

Action: JS(Plan/CPP-II)

7.04: To consider Interim Report of Expert Group constituted on Globalization and Export of Higher Education.

The Commission Members considered and deliberated on the Interim Report of the Expert Group constituted on Globalization and Export of Higher Education and agreed, in principle, on the suggestions of the Committee.

Doc. 58/2

मानव संसाधन विकास मंत्रालय
माध्यमिक शिक्षा और उच्चतर शिक्षा विभाग
भारत सरकार
शास्त्री भवन
नई दिल्ली - 110 001

V. S. PANDEY
JOINT SECRETARY
TELE # 23382298

MINISTRY OF HUMAN RESOURCE DEVELOPMENT
DEPARTMENT OF SECONDARY EDUCATION & HIGHER EDUCATION
GOVERNMENT OF INDIA
SHASTRI BHAVAN
NEW DELHI - 110 001

CHAIRMAN'S SECRETARIAT
Dy. No. 1287
11 JUN 2003
University Grants Commission
New Delhi

June 9, 2003.

D.O.NO.F.5-18/2003-U.I

Dear

Kindly refer to the minutes of 409th Meeting of the University Grants Commission held on 9th April, 2003. While considering the establishment of Institutes for promoting quality, teaching and research in basic sciences, the Commission, in principle, has agreed to establish four Centres for Studies in Integrated Sciences (CSISs). These Centres are proposed to be established under Section 12(ccc) of the UGC Act. It is worthwhile mentioning that Section 12(ccc) authorizes the University Grants Commission to "establish, in accordance with the regulations made under UGC Act, institutions for providing common facilities, services and programmes for a group of universities or for the universities in general and maintain such institutions or provide for their maintenance by allocating and, disbursing out of the Fund of the Commission such grants as the Commission may deem necessary."

It would be pertinent to examine whether the University Grants Commission is empowered to set up such educational centers under Section 12(ccc) of the UGC Act? You are kindly requested to get this particular issue examined legally and send us your comments at an earliest possible.

With regards,

Yours sincerely,

(V.S. PANDEY)

Dr. Arun Nigavekar,
Chairman,
University Grants Commission,
Bahadur Shah Zafar Marg,
NEW DELHI – 110 002.

DOC. 50
1 page

DY. 784 / 2003 (SCC IIUC)
12/6/03

40

मानव संसाधन विकास मंत्रालय
माध्यमिक शिक्षा और उच्चतर शिक्षा विभाग
भारत सरकार
शास्त्री भवन
नई दिल्ली - 110 001

V. S. PANDEY
JOINT SECRETARY
TELE # 23382298

MINISTRY OF HUMAN RESOURCE DEVELOPMENT
DEPARTMENT OF SECONDARY EDUCATION & HIGHER EDUCATION
GOVERNMENT OF INDIA
SHASTRI BHAVAN
NEW DELHI - 110 001

CHAIRMAN'S SECRETARIAT
Dy. No. 1287
11 JUN 2003
University Grants Commission
New Delhi

June 9, 2003.

D.O.NO.F.5-18/2003-U.1

Dear

Kindly refer to the minutes of 409th Meeting of the University Grants Commission held on 9th April, 2003. While considering the establishment of Institutes for promoting quality, teaching and research in basic sciences, the Commission, in principle, has agreed to establish four Centres for Studies in Integrated Sciences (CSISs). These Centres are proposed to be established under Section 12(ccc) of the UGC Act. It is worthwhile mentioning that Section 12(ccc) authorizes the University Grants Commission to "establish, in accordance with the regulations made under UGC Act, institutions for providing common facilities, services and programmes for a group of universities or for the universities in general and maintain such institutions or provide for their maintenance by allocating and, disbursing out of the Fund of the Commission such grants as the Commission may deem necessary."

It would be pertinent to examine whether the University Grants Commission is empowered to set up such educational centers under Section 12(ccc) of the UGC Act? You are kindly requested to get this particular issue examined legally and send us your comments at an earliest possible.

With regards,

Yours sincerely,

9.6

(V.S. PANDEY)

Dr. Arun Nigavekar,
Chairman,
University Grants Commission,
Bahadur Shah Zafar Marg,
NEW DELHI – 110 002.

JT-Sec (IUC)
PS Chairman/Secy
AS
MS-Jugu 10/6/03
Pl. place relevant papers.
Not required
11/06
US(IUC)
SO(IUC)
MP 12/6/03

Doc. 50 1 page

60/1

First National Inst of Sciences for city

Financial sanction is awaited as 50 acres of NCL land is cleared for institute

EXPRESS NEWS SERVICE
MAY 10

NATIONAL Technology Day, on Tuesday, has good news in store. If all goes well, Pune will be the first city to have a National Institute of Sciences (NIS) — an equivalent to the IITs in the field of pure sciences. This, on 50 acres of land within the National Chemical Laboratory (NCL) premises, which will provide a post-graduate degree from the academic year of 2005.

Dr V G Bhide, former vice chancellor of the University of Pune and chairman of the High Power Committee of NIS, has received a copy of the letter from the Council of Scientific and Industrial Research (CSIR) to the University Grants Commission (UGC), clearing the NCL land for the institute. The committee now awaits financial sanction of Rs70 crore.

National Tech Day

A brainchild of leading astro-physicist Dr Govind Swarup and Dr V G Bhide, the NIS was conceptualised in 1998. The objective says Swarup, "Is to identify brilliant young talent for pursuing pure science, a stream that has been neglected due to the craze for engineering and medical science."

Pune industrialists and scientists gathered to chalk out a proposal for making education at the NIS compatible with the needs of technologically progressive industries.

Says Bhide, "Technology has come very close to science — in fact technology today is totally science-based, hence there is a need to launch an integrated five-year course, post Standard XII."

When the proposal was approved by the central government, Swarup says, "Murli Manohar Joshi was quite taken in by the idea and extended the National Institute of Sciences to four cities. While Pune will be the pioneer, Bhubaneshwar, Allahabad and Chennai will follow suit."

The all India entrance exam to the NIS will be at par with the IITs.

Dos. 61 : 1 page 60+ 61/1

पुणे विद्यापीठ

गणेशखिंड, पुणे-४११००७.

University of Pune

Ganeshkhind, Pune-411007.

अशोक कोळस्कर
पीएच.डी., एफ.एन.ए., एफ.एन.ए.एससी.
कुलगुरू

दूरध्वनी : (कार्यालय) ५६९३८६८
(निवास) ५६९०७६५

A. S. Kolaskar
Ph.D., FNA, FNASc.
VICE-CHANCELLOR

Telephone : (O) 020-56993868
(R) 020-56990765
Fax : +91 20 56993233
E-mail : (O) puvc@unipune.ernet.in
kolaskar@bioinfo.ernet.in

VC/305

June 24, 2003

To:
- Professor V. G. Bhide, Professor Emeritus, University of Pune, Pune
- Professor Govind Swarup, NCRA-TIFR, Pune University Campus, Pune
- Dr. K. N. Ganesh, NCL, Pune
- Dr. Ajit Kembhavi, IUCAA, Pune
- Prof. Dilip Deobagkar, Head, Zoology Department, University of Pune, Pune

Dear Colleagues,

The Chairman, UGC, was at Pune sometime back and has informed orally that the UGC will be establishing Centre for Studies in Integrative Sciences in Pune. Professor V. G. Bhide and Dr. Govind Swarup have initiated this project quite sometime back as the Advanced Centre for Science & Technology (ACST). We need to discuss various issues regarding the formation of this center including Memorandum of Association etc. I. therefore, request you to attend the meeting on **Thursday, the 26th June, 2003, at 10.00 a.m.** in Yashwantrao Chavan Sabhagriha. This is urgent, as the UGC needs the input from us, at the earliest.

With warm personal regards,

Yours sincerely,

A. S. Kolaskar

Ashok Kolaskar

Doc. 62 : 1 page

62/1

डॉ. अरूण निगवेकर
अध्यक्ष

Dr. Arun Nigavekar
Chairman

विश्वविद्यालय अनुदान आयोग
बहादुर शाह ज़फर मार्ग, नई दिल्ली–110 002
UNIVERSITY GRANTS COMMISSION
BAHADUR SHAH ZAFAR MARG
NEW DELHI - 110 002
OFF : (011) 23239628
FAX : (011) 23231797
E-mail : narun42@hotmail.com

D.O.No.F.1-74/2003(Cm)

July 23, 2003

Sub: Establishment of National Institute of Sciences: UGC's new initiative in collaboration with other scientific agencies in the Xth Plan.

Dear Dr. Kolaskar,

You may be aware that growing concern has been expressed at various times on various forums about continual decline in standards of education at all levels, particularly at tertiary level, as also on the recent trend of bright boys and girls shying away from science. This trend, over the years, has affected the quality of human power output into our research and development system. The matter is of national concern and is reflected in the speech given by the Hon'ble Minister for Human Resource Development, Professor Murli Manohar Joshi on the occasion of initiation of a Golden Jubilee Year of the UGC. In his inaugural speech Hon'ble Minister observed as under:

> "The undergraduate education in pure sciences is a matter of serious concern. We are going to face shortage of good researchers in a few years time particularly in our premier research institutes in the field of Atomic Energy, Space, Bio-technology, Energy, Oil exploration, Communication and so on. We will have to focus at 10+2 level and "catch them young" for integrated 5 years teaching programme with a possibility of exit after three years".

Hon'ble Prime Minister also, while inaugurating the Golden Jubilee year of the UGC on 28th December, 2002, expressed serious concern on this important issue and suggested creation of such facilities that will fulfil the need of quality human power input into research and development system.

The University Grants Commission was aware of this scenario and addressed this issue in the Xth Plan document. I am very happy to inform you that the Commission has now decided to establish four Centres for studies in Integrative Sciences and these Centres would be established in the proximity of following four universities:

(i) East: At Bhubneshwar in the proximity of Utkal University

(ii) West: At Pune in the proximity of University of Pune

Doc. 63 : 3 pages 63/1

Contd....2/-

(iii) North: At Allahabad in the proximity of Allahabad University

(iv) South: At Chennai in the proximity of Anna University

These Centres would be called as National Institute of Sciences (NISc) and would have a budget of Rs.50 crores each spread over five years. The provision of Rs.100 crores has been done for this activity in the Xth Planand UGC has approached the Planning Commission for making provision of additional Rs. 100 crores for the project in the period of Xth Plan. Hence presently each of the NISc would be provided with Rs.25 crores each.

The Commission has also appointed a High Power Committee to bring these NIScs into operation. The members of the High Power Committee are:

1. Prof. V.G. Bhide ... Convenor
   Former Vice-Chancellor
   University of Pune

2. Prof. S.K. Joshi
   Member Commission, UGC

3. Prof. Ashok Kumar Gupta
   Member Commission, UGC

4. Prof. N. Mukunda
   Indian Institute of Science, Bangalore

5. Prof. D. Balasubramanian
   Former Director
   Centre for Cellular and Molecular Biology, Hyderabad

The task for the High Power Committee is to prepare Memorandum of Association and Rules of NISc and I am **enclosing** with this letter a draft MOA as prepared by this Committee for NISc for your perusal.

The NISc would be established as autonomous institutions under clause 12(ccc) of the University Grants Commission Act in close association and collaboration with various science agencies like CSIR, DST, DAE, ISRO and DBT. It is anticipated that University of Pune would recognize the NISc as an autonomous institution and would provide full academic, administrative and financial freedom for operational purpose. The students coming out from the NISc would get appropriate degree of your university. It is also anticipated that NISc being a national organization would have a close academic linkage with the neighbouring university, research and development laboratories as well

Contd... 3/-

Doc. 63/2

as national laboratories and prestigious research institutions and also other universities in the country. It will also have link with the industries. NISc would also have academic links with universities and R&D institutions outside the country.

We hope that NISc at your university becomes a major teaching learning and research centre in basic sciences in times to come. As such the university may have to provide a land of about 50 acres for establishment of NISc. As mentioned earlier University Grants Commission would be providing full financial support for the establishment of NISc and would also continue to support each of the NISc under plan funds even in future.

You may agree that this is one of the very important initiatives that has been taken by the University Grants Commission in recent years with emphasis on catching the best of the minds for launching them in research and development field in science and technology. I am sending this letter to keep you informed about this new initiative and also with a request to initiate at appropriate level the decision making process for acceptance of NISc as an autonomous degree conferring institution and providing administrative as well as logistic support for the establishment of the NISc. I may also suggest that you could call a meeting of all heads of local educational and R&D institutions/laboratories and brief them about this development. Their participation in formation and running of institute is very crucial for the success of NISc.

I look forward for a positive response at your end on this new initiative of UGC.

With kind regards,

Yours sincerely,

(Arun Nigavkar)

Encl: As above

Dr. Ashok Kolaskar
Vice-Chancellor
University of Pune
Pune – 411 007.

Dol. 63/3

S.No.2(UC)

40

सत्यमेव जयते

RAVI MATHUR
JOINT SECRETARY(HE)
TEL NO. 23381097

मानव संसाधन विकास मंत्रालय
माध्यमिक और उच्चतर शिक्षा विभाग
भारत सरकार
शास्त्री भवन
नई दिल्ली - 110 001

MINISTRY OF HUMAN RESOURCE DEVELOPMENT
DEPARTMENT OF SECONDARY & HIGHER EDUCATION
GOVERNMENT OF INDIA
SHASTRI BHAVAN
NEW DELHI - 110 001

D.O.No.5-18/2003-U-I Dated: 18th July, 2003.

Dear Dr. Nigavekar,

Kindly refer to our D.O. letter of even number dated 9th June, 2003 regarding establishment of Institutes for promoting quality, teaching & research in Basic Sciences. It was requested to get this issue examined legally and send its comments at an earliest. Comments of the Commission on the matter are still awaited.

I shall be grateful if you could kindly expedite the comments of the Commission to enable us to examine the matter further.

Urgent

With regards,

Dr. Dv Prakash

Yours sincerely,

(Ravi Mathur)

Dr. Arun Nigavekar,
Chairman, UGC
Bahadur Shah Jafar Marg,
New Delhi.

Doc. 54 : 1 page

64/1

214

Amitesh Kumar
Advocate

Office:
20-A, Lawyers Chamber
Supreme Court,
New Delhi-110001.
Phone-23386914,23385275
23381727,9811034115 [M]

Residence:
199, Simant Vihar
Kaushambi,
Ghaziabad, U.P.
95120-2774335.

-45-

07th August, 2003

OPINION

My opinion has been sought on the issue as to whether the University Grants Commission can establish four centres for studies in integrated sciences u/s 12 [ccc] of the University Grants Commission Act, 1956.

I have examined the ambit and scope of Section 12 [ccc] of the University Grants Commission Act, 1956 as also the University Grants Commission [Establishment and Maintenance of Institutions] Regulations, 1985.

It appears that on 09.04.2003, a meeting of the University Grants Commission was held to consider the establishment of institutes for promoting quality, teaching and research in basic sciences as also the University Grants Commission's initiative in collaboration with other scientific agencies in the 10th Plan. After deliberating at length on the issue, the Commission agreed, in principle, for establishment of institutes for promoting quality, teaching and research in basic sciences in collaboration with other scientific agencies in the 10th Plan. The Commission agreed that the centres for studies in integrated sciences be established at four places in East, West, North & South of India.

It is relevant to point out that in exercise of power conferred u/s 26[1][h] of the University Grants Commission Act, 1956, the University Grants Commission [Establishment and Maintenance of Institutions] Regulations, 1985 has been framed. Regulation 2[i] of the said regulation specifically provides that the University Grants Commission may, with the approval of the Government of India, establish or cause to be established an autonomous organisation for purposes and functions to be specified in a project report, which would, amongst others, contain the following:-

[a] Rationale;

Doc. 65 : 2 Pages 65/1

[b] Objectives and functions;

[c] Plan of development;

Amitesh Kumar
Advocate

awyers Chamber
me Court,
Delhi-110001.
ne-23386914,23385275
381727,9811034115 [M]

Residence:
199, Simant Vihar
Kaushambi,
Ghaziabad, U.P.
95120-2774335.

[d] The structure of management including the membership of the Society, the Board of Management and other concerned bodies, and their functions and powers, mechanism for its evaluation;

[e] Financial implications, including phasing of expenditure; and

[f] The nature and mechanics for enforcement of accountability to University Grants Commission and Government.

It is also relevant to point out that Section 12 [ccc] of the University Grants Commission Act, 1956 specifically provides for the establishment in accordance with the regulations made under the University Grants Commission Act, institutions for providing common facilities, services and programmes for a group of Universities or for the Universities in general.

After considering the aforesaid provisions contained in Section 12 [ccc] of the University Grants Commission Act, 1956 as also the University Grants Commission [Establishment and Maintenance of Institutions] Regulations, 1985, I am of the opinion that University Grants Commission can establish four centres for studies in integrated sciences as resolved by the University Grants Commission in it's meeting held on 09.04.2003 u/s 12 [ccc] of the University Grants Commission Act, 1956.

[AMITESH KUMAR]
Advocate

Doc. 65/1

215

विश्वविद्यालय अनुदान आयोग
बहादुर शाह ज़फर मार्ग,
नई दिल्ली – 110 002
UNIVERSITY GRANTS COMMISSION
BAHADUR SHAH ZAFAR MARG
NEW DELHI - 110002
OFF : (011) 23234019
: (011) 23236350
FAX : (011) 23239659

प्रो॰ वेद प्र

Prof. Ved Prak
Secr

S.No 49 Encl

D.O.No. 20-2/2003(IUC)

29th August, 2003

Dear Shri Pandey,

29 AUG 2003

Kindly refer to your D.O. letter No. F.5-18/2003-U.1 dated 9th June, 2003 addressed to Chairman, University Grants Commission regarding the establishment of four centres for studies in Integrated Sciences(CSISs) under Section 12(ccc) of the University Grants Commission Act, 1956.

We have solicited the legal advice on the subject from an Advocate of the Supreme Court, as desired by you. The Advocate is of the opinion that Section 12(ccc) of the University grants Commission Act 1956 specifically provides for the establishment in accordance with the regulations made under the University Grants Commission Act, institutions for providing common facilities, services and programmes for a group of Universities or for the Universities in general.

Having regard to the aforesaid provisions contained in Section 12(ccc) of the University Grants Commission Act, 1956 as also the University Grants Commission (establishment and maintenance Institutions) Regulations, 1985, he has opined that University Grants Commission can establish the proposed centres for studies in integrated sciences as resolved by the Commission in its meeting held on 9th April, 2003.

A photocopy of the legal opinion is also enclosed for your kind perusal.

With regards,

Yours Sincerely

29/8/03

o/c (Ved Prakash)

Shri V.S.Pandey
Joint Secretary
Deptt. of Secondary & Higher Education
Ministry of Human Resource Development
Govt. of India, Shastri Bhawan
New Delhi-110001

Encl: as above

ISSUED

Doc. 66: 1 page
66/1

डॉ. अरूण निगवेकर
अध्यक्ष

Dr. Arun Nigavekar
Chairman

विश्वविद्यालय अनुदान आयोग
बहादुर शाह ज़फर मार्ग, नई दिल्ली–110 002
UNIVERSITY GRANTS COMMISSION
BAHADUR SHAH ZAFAR MARG
NEW DELHI - 110 002
OFF : (011) 23239628
FAX : (011) 23231797
E-mail : narun42@hotmail.com

D.O.No.F.1-10/2003(Cm)

October 8, 2003

Sub: Establishment of National Institute of Sciences (NISCs) under its Xth five year plan program of Centres for Studies in Integrative Sciences.

Dear Shri Tripathi,

This refers to our discussion yesterday in your office and I am **enclosing** herewith a note justifying the establishment of National Institute of Sciences under the UGC programme of Centres for Studies in Integrative Sciences in the Xth Plan for getting clearance from the Ministry of Law. I would appreciate if you kindly seek the clearance from the Ministry of Law at the earliest.

With warm personal regards,

Yours sincerely,

(Arun Nigavekar)

Encl: As above

Shri S.K. Tripathi
Secretary
Ministry of Human Resource Development
Deptt. of Secondary & Higher Education
Shastri Bhavan
New Delhi – 110 001.

Copy to:

1. Shri Ravi Mathur, Joint Secretary(HE), Ministry of Human Resource Development, Deptt. of Secondary & Higher Education, Shastri Bhawan, New Delhi along with annexure.

2. Dr. P. Prakash, Joint Secretary, UGC along with annexure.

3. Prof. V.G. Bhide, Emeritus Professor, University of Pune, Pune- 411 007

Doc 67: 5 pages 67

217 Doc. 67 67/1

(Arun Nigavekar)

A NOTE ON JUSTIFICATION FOR INITIATION OF NATIONAL INSTITUTE OF SCIENCES (NISCS) BY THE UGC IN THE XTH PLAN.

INTRODUCTION

The University Grants Commission has recently taken a decision to establish four National Institute of Sciences under its Xth five year plan program of Centres for Studies in Integrative Sciences. These four National Institute of Sciences are to be established in the four regions of the nation and they are to be in the proximity of a university. These NISCs are to be established at following places:

(i) East: At Bhubneshwar in the proximity of Utkal University

(ii) West: At Pune in the proximity of University of Pune

(iii) North: At Allahabad in the proximity of Allahabad University

(iv) South: At Chennai in the proximity of Anna University

These institutions are to play the following roles:

(i) To create a first-grade academic infrastructure for enabling young students across the country, after their +2 examination, to pursue teaching and learning process in an open, flexible and integrated manner for their graduate, postgraduate and doctoral degrees in the field of basic and applied sciences.

(ii) To establish state-of the-art research and development facilities to enable young researchers to pursue exciting research at the frontiers of basic and applied sciences that are at the cutting age of science and technology, and

(iii) To create conducive environment and academic as well as R&D approaches for providing pro-active catalytic support for enhancing quality of teaching and learning as well as research in the university which is in the proximity as well as universities in the region where the institution is situated. The NISC is expected

Doc. 67/2

to work as a **lead institution** in this respect for the group of universities in each of the region.

Each of such institution will be registered under the Societies Registration Act of 1860 or under the relevant Act of the State Government in whose jurisdiction the institution is located. The University Grants Commission would be allocating and disbursing out of the Fund of the Commission such grants as the Commission may deem necessary for creation, operation and running of such institutions. The University Grants Commission has made specific allocation of Rs.50 crores for each of the institution that would be established in four regions. This activity would also be done in collaboration with the various scientific agencies like CSIR, DST, DAE, ISRO, Deptt. of Oceanography and DBT.

ACADEMIC JUSTIFICATION

1. The last few decades of the 20th century have clearly established link between knowledge and the social and economic development of a nation. It is also demonstrated that nations that have sound education and research base in pure sciences are the nations that would be able to create and use the future technologies. Thus basic science has come at the centrestage in the thinking and the living of humans and hence have become integrated part of the policies and strategies of a nation.

2. In such an emerging scenario, the competitive advantage of a nation will be determined essentially by its scientific capacity and technical competence. India therefore has to put in focused efforts to be at the frontiers of science and at the cutting age of technology.

3. India is facing a peculiar problem because bright boys and girls are shying away from science and in addition there is a continual decline in standards of basic science education. This has affected the quality of human power input into our research and development system. We are, even today, facing a shortage of qualified, skilled and motivated young minds that would lead science and

Doc. 6/3/3

technology development programmes in strategic and key areas, such as atomic energy, space, electronics, bio-sciences and technology, materials, energy, communication etc. This shortage is bound to grow unless we take corrective steps.

4. The matter is of national concern and attracted attentions at higher level for appropriate action. The Hon'ble Prime Minister while inaugurating the Golden Jubilee Year of the UGC on 28th December, 2002 announced that such Centres would be established by the UGC to fulfil the need of quality manpower input into research and development system.

5. Hon'ble Minister for Human Resource Development in his inaugural speech in the Golden Jubilee Year of the University Grants Commission, expressed his concern in this context and observed as under:

> "The undergraduate education in pure sciences is a matter of serious concern. We are going to face shortage of good researchers in a few years time particularly in our premier research institutes in the field of Atomic Energy, Space, Bio-technology, Energy, Oil exploration, Communication and so on. We will have to focus at 10+2 level and "catch them young" for integrated 5 years teaching programme with a possibility of exit after three years".

LEGAL JUSTIFICATION

1. The University Grants Commission has been endowed with powers and functions for promotion and coordination of university education and also taking of such other functions that the Commission may deem necessary for advancing the cause of higher education in India. This has been clearly delineated in section 12 and in various sub clauses of the University Grants Commission Act of 1956.

2. The establishment of National Institute of Sciences is being done under the clauses of 12 j and 12ccc as the activity would be addressing

Doc. 64/4

i) The question of creation of a qualified skilled human power, as demanded by various national research agencies and industries in a focused manner to advance the cause of higher education in India.

ii) The question of creation of benchmarks and appropriate academic and R&D environment in all the existing universities by establishing academic linkages with the universities in the country. Each of NISc would be serving the group of universities in the region where NISc would be located.

The Ministry of MHRD is therefore requested to accord clearance for establishment of National Institute of Sciences in the four regions of the country namely in the proximity of the Utkal University, University of Pune, University of Allahabad and Anna University by the University Grants Commission in the Xth Plan.

A. T. Nigavekar

(Arun Nigavekar)
Chairman
University Grants Commission
New Delhi

Doc. 68/5

INIS file-1

पुणे विद्यापीठ

गणेशखिंड, पुणे-४११००७.

University of Pune

Ganeshkhind, Pune-411007.

अशोक कोलस्कर
पी.एच.डी., एफ.एन.ए., एफ.एन.ए.एस्सी.
कुलगुरू

A. S. Kolaskar
Ph.D., FNA, FNASc.
VICE-CHANCELLOR

दूरध्वनी : (कार्यालय) ५६[illegible]८६८
(निवास) ५६८०७६५

Telephone : (O) 020-5693865
(R) 020-5690765
Fax : +91 20 5693233
E-mail : (O) puvc@unipune.ernet.in
kolaskar@bioinfo.ernet.in

VC/ 4-6 1

October 6, 2003

- Prof. V. G. Bhide, Emeritus Professor, University of Pune
- Prof. Govind Swarup, NCRA-TIFR, Pune
- Dr. Padmanabhan, IUCAA, Pune
- Dr. S. Shivram, Director, NCL, Pune
- Dr. Murli Shastri, NCL, Pune
- Dr. K. N. Ganesh, NCL, Pune
- Dr. S. K. Date, NCL, Pune
- Prof. D. G. Kanhere, Dept of Physics
- Prof. Dilip Deobagkar, Dept of Zoology
- Prof. Gautam Sen, Director, BCUD
- Dr. Anand Deshpande, Persistent Systems Pvt. Ltd. Pune
- Mr. Milind Padhye, Cognizence Solutions, Hinjwadi
- Mr. Raj Datar, Cyrrus Logic, Pune

Dear Colleagues,

You will be happy to know that the University Grants Commission has decided to establish National Institute of Sciences at Pune. The High Power Committee met recently in Delhi and has requested me to form the Steering Committee to discuss the modalities and various aspects related to the functioning of the National Institute of Sciences. Professor V. G. Bhide, Chairman of the High Power Committee, will also guide this Steering Committee. I request you to be a member of the Steering Committee. The first meeting of the Steering Committee will be held on Thursday, the 9th October, 2003, at 10.30 a.m. in Sant Gadge Maharaj Sabhagriha, University of Pune. Kindly make it convenient to attend the meeting.

With best regards,

Sincerely,

A. S. Kolaskar

Ashok Kolaskar

68
Doc. 70 : 1 page
70/1 68/1

National Centre for Radio Astrophysics
TATA INSTITUTE OF FUNDAMENTAL RESEARCH

NCRA • TIFR

NCRA, PUNE UNIVERSITY CAMPUS, POST BAG 3, GANESHKHIND, PUNE 411 007, INDIA
Telephone: (Gen) +91 20 5697107, 5691384-5 (Res) 5899030 ; Fax +91 20 5697257, 5692149
Telex: 0145-7658 GMRT IN; Gram: RASTRON; Email: gswarup@ncra.tifr.res.in

Prof. Govind Swarup, F.R.S
INSA Honorary Scientist
Former Director, NCRA/GMRT

6th November 2003

To

Prof. A.S. Kolaskar
Vice-Chancellor
University of Pune
Pune-411 007

FAX TO : Mr P. P. Chabbaria
Mr. Arun Firodia
Dr. Naushad Forbes
Mr Pratap Pawar - 4450583
G. Swarup

Fax Sent

Subject: Meeting on Saturday Nov 8 at 930 AM re: National Institute of Sciences (NISc)

Dear Prof Kolaskar

As suggested by Prof Bhide I have requested the following persons to participate in a meeting on Sat Nov 8 at 9 30 AM in the Sant Gadage Maharaj Hall of the University of Pune. Your Secretary has confirmed your convenience. I am also sending the enclosed note to the participants:

1. Mrs Anu Aga - out of station
2. Mr P. P. Chabbaria- confirmrd
3. Mr Arun Firodia - confirmed
4. Mr Naushad Forbes - coming back to Pune on 7th morning, I am sending him a FAX and I also plan to phone him.
5. Dr Vijay Bhatkar : has confirmed.
6. Dr. S Sivaram; may be able to attend
7. Prof V. G. Bhide confirmed
8. Prof. P. P. Kale; gone to Delhi, may return.
9. Prof. G. Swarup
10 Mr Pratap Pawar

With regards,

Yours sincerely,

Govind Swarup

Govind Swarup

Doc. 69 : 2 pages 69/1

National Institute of Sciences (NISc) :

A Note giving brief Background for the Meeting with the VC and others at 0930 Hrs on Saturday, Nov 8, 2003 in the Main Building of the University of Pune (in Sant Gadage Maharaj Hall):

1. The purpose of the meeting is to discuss aims and objectives and a long term vision of NISc. It is a new initiative for giving a 5-year education in Science and related technologies, integrating teaching and research, to well motivated and talented boys and girls, to be selected on all India basis, after their 10+2 studies.

2. Govt. of India has recently approved Rs 50 crores for establishing NISc at Pune. It is to be setup in a plot of about 50 acres, to be given by the National Chemical Laboratory.

3. NISc will have a close collaboration with the University of Pune and several scientific institutions in Pune and elsewhere in India.

4. A close collaboration with the industry is essential in order to create a world class teaching and research institute , comparable to the best in the world , with an aim to benefit Indian Science and Industry.

5. A group of 22 educationalist, scientists and industrialists in Pune had proposed to the Govt of India in 1997 and in 1999 to establish an "Advanced Centre for Science and Technology (ACST)" at Pune for a 5-yr education after 12th std with a new paradigm in science education. It was planned to have a close collaboration with several research institutes in Pune and all the major Science agencies , such as CSIR, DAE. DBT, DOE(now MIT), DRDO, DST, ISRO etc. Active participation by Industry was considered essential for the programme. Many of us have actively pursued the proposal over the last 6 years. Prof Nigvekar, the Chairman of UGC has now got the programme approved by Prof Murali Manohar Joshi and the Ministry of Human Resource Development. The Planning Commission has also approved the programme.

6. The Govt has now decided to set up 4 National Institutes of Sciences (NISc), at Pune, Allahabad, Bhubneshwar and Chennai.

7. Some of us are of the view that the new institute ,at least in Pune, should be named as "National Institute of Technology (NIST)" as the gap between science and technology is only a few years now. The Govt is likely to discuss the final (MOA, Rules and Regulations etc.) details (such as MOA, Rules and Regulations etc.) and also the name over the next month. Prof Bhide is Chairman of a High Power committee and he is ensuring that the new Institute will have sufficient autonomy.

8. Considering the great potential of Pune , for establishing a true world class Institute, we will need support of all the Scientific Institutes as well Industry.

9. Your participation in the meeting would be of great value.

10. 9. An Executive Summary of the proposed programme will be given to you at the meeting.

Doc. 69/2

Prof V. G. Bhide. Prof. A. Kolaskar. Dr S. Sivaram , Prof G. Swarup and others.

BY SPEED POST

National Centre for Radio Astrophysics
TATA INSTITUTE OF FUNDAMENTAL RESEARCH

NCRA • TIFR

NCRA, PUNE UNIVERSITY CAMPUS, POST BAG 3, GANESHKHIND, PUNE 411 007, INDIA
Telephone: (Gen) +91 20 5697107, 5691384-5 (Res) 5899030 ; Fax +91 20 5697257, 5692149
Telex: 0145-7658 GMRT IN; Gram: RASTRON; Email: gswarup@ncra.tifr.res.in

Prof. Govind Swarup, F.R.S
INSA Honorary Scientist
Former Director, NCRA/GMRT

18th November 2003

His Excellency Dr. A.P.J. Abdul Kalam
President of India
Rastrapati Bhawan
New Delhi-110 001

Dear Rashtrapati ji,

I would like to seek a meeting with you for about 15 to 20 minutes, preferably during Nov. 27 to Dec 3, 2003 (or before or after) when I plan to be in Delhi for attending a conference. I am giving a talk on 26th November 2003 morning.

I am glad to inform you that the Govt. of India has recently approved setting up of a new institute for a five year integrated M.Sc. degree after 10+2 of schooling. The Institute is to be located in a fifty acre land at National Chemical Laboratory (NCL) in Pune. It is a highly innovative programme in which teaching and research will be carried out by the students throughout their 5 year integrated education .

You may recall that we had discussed with you this programme four years ago, when we had submitted a document to the Govt. of India for the "Advanced Centre for Science and Technology Education (ACSTE)". Our programme at Pune is to be carried out in an autonomous centre but with close collaboration with the University of Pune, TIFR, C-DAC, IUCAA, NCRA, NCCS etc. We are also proposing a very close collaboration with all the science agencies like DAE, CSIR, DBT, DST, DRDO, DOE and ISRO. We hope to produce leaders of tomorrow in science and technology.

I understand that the Govt. has now decided to set up four similar centres viz. at Pune, Allahabad, Bhubaneshwar and Chennai under the aegis of UGC. The centres are to be named as the National Institute of Sciences (NISc). Their formation is likely to be announced on the occasion of the 50th year celebration function of UGC in end December 2003.

Considering our main objectives for creating a world class centre at Pune, for creating leaders of tomorrow, not only to benefit scientific research in India but also to provide man power to industries, we would prefer the new centre at Pune to be called as National Institute of Science and Technology (NIST, Pune). We are hoping that we can prevail upto UGC to agree to the same.

I wonder whether you would recall that during a visit to Pune when you were kind enough to address the students at the J.C.Bose Science Promotion Forum in the Chandrasekar Auditorium of IUCAA, you got up and sat down besides me and asked me."what is your new dream". I answered, "Education". I would like to get your guidance regarding the same.

With best regards,

(70)
Doc. ~~68~~ : 1 page 65+ 70/1

Yours sincerely,

Govind Swarup
(Govind Swarup)

225

FINAL DRAFT

MEMORANDUM OF ASSOCIATION

AND RULES

OF

NATIONAL INSTITUTE OF SCIENCES, PUNE

(NISc)

22nd August 2003

Doc. ~~69~~ 71/10 pages ~~47~~ 71/1

Memorandum of Association

And

Rules

Doc. ~~69/2~~ 71/2

Memorandum Of Association

Of

National Institute of Sciences, Pune

(NISc)

1. Preamble:

This Memorandum of Association (MOA) of the National Institute of Sciences Pune, (NISc) is to enable NISc to carry out the functions in furtherance of its objectives namely to play a twin role of a first grade teaching and educational institute for educating and training students after their Higher Secondary School Certificate or equivalent examination in an integrated way for their graduate, post graduate or equivalent and doctoral degrees, so as to satisfy the increasing demand of highly qualified, motivated and talented students to carry out research in various areas of relevance to the country, and as an exciting research establishment working at the frontiers of basic and applied sciences. It will be an autonomous society registered under Societies Registration Act of 1860 to create a new ethos in science education, research and technology development within the country.

2. Name of the Society:

The name of the Society established by the University Grants Commission under 12 (ccc) of its Act No. 3 of 1956 and Regulations (establishment and maintenance of institutions) 1985 under its programme of Centres for Studies in Integrative Sciences shall be **National Institute of Sciences, Pune.**

3. Registered Office:

The Registered Office of the NISc shall be at the National Chemical Laboratory campus, Pashan, Pune 411 008, in the state of Maharashtra till such time that it is not altered by the Governing Council.

Doc. ~~69/3~~ 71/3

4. Jurisdiction of the National Institute of Sciences:

The jurisdiction of the NISc, Pune will be all India. This MOA also provides NISc to enter into collaboration for education, research and development in various branches of science and technology with laboratories, institutions, agencies and industries within and outside the country. This MOA also provides NISc to set up pilot plants and industries on its own or in joint collaboration with other agencies within and outside the country in accordance with the rules and regulations of the Government of India in this regard issued from time to time.

5. Objectives of the National Institute of Sciences :

The objectives for which the National Institute of Sciences Pune, (NISc) is established are:

To disseminate, create and preserve knowledge and understanding by teaching, research, extension and to apply the understanding and knowledge already available or newly generated for the benefit of the society and the nation by providing consultancy, transfer of knowhow generated and by setting up production facilities and by effective demonstration and influences of its academic achievements, on the academic ambeance in the country. These shall be achieved by making NISc to function as under:

(i) To provide for innovative and flexible five year integrated course after Higher Secondary Certificate or equivalent examination leading to graduate and post-graduate degrees in sciences. It shall provide an exit route at the end of three years. In addition, this Institute shall provide avenues for doctoral research degrees and for carrying out advanced research and development activities in science and technology. The Institute may also admit a number of qualified students directly for Masters or Doctoral programmes.

(ii) To perform the twin role of a world class teaching and research in various areas of science.

Doc. 64/4 71/4

(iii) To provide a broad based flexible science education programme with emphasis on:
(a) acquisition of information, skills and knowledge.
(b) to create dedicated and committed individuals with a passion for pursuing science as a career.
(c) inculcation of attitudes and outlooks to develop social commitment as well as high level of scientific ethics and integrity.

(iv) To evolve symbiotic relationship with the University of Pune in such a way that the University enables the NISc to grow and develop and in turn to ensure that new and novel educational programmes integrated with creative and innovative research and development programmes seep into the University. The two together shall not only share their experience and expertise with other universities in the country.

(v) To evolve collaborative arrangement with science agencies and their research and development laboratories / institutes with a view to evolve symbiotic relation with them so as to enable NISc to train and provide highly qualified, motivated and skilled manpower.

(vi) To provide and promote effective linkages on a continuing basis between NISc and universities, IIT's and research laboratories in various branches and aspects of sciences for joint research projects, visiting faculty, training and internship programme and other activities of NISc.

(vii) To forge strong links with industry by enlisting their co-operation in funding, management and monitoring of NISc.

(viii) To establish mutually beneficial alliances with industry by providing consultancy, know how and test facilities to the industry so as to make industry globally competitive.

(ix) To collaborate with foreign research institutes and laboratories and other international organizations in areas relevant to the objectives of NISc.

Doc. ~~6975~~ 71/5

(x) To create, establish, maintain, manage and utilize laboratories, workshops, and other facilities for various educational, research and development activities of NISc.

(xi) To establish and maintain a modern well equipped library and documentation and data centre.

(xii) To publish research papers, technical reports, books, periodicals, review articles, popular articles, etc.

(xiii) To organize workshops, seminars, national and international conferences in various branches of science and technology, science education policy issues and in fields of general interest to NISc.

(xiv) To organize and conduct short and long term programmes in various areas of science and technology for the upgradation of knowledge and skills of students and teachers from various colleges and universities, and personnel from various research institutions, industries and other such organizations.

(xv) To organize and execute programmes for public outreach.

(xvi) To appoint academic, technical, administrative and other staff and to determine their number, qualification, scales of pay and terms and conditions of service as prescribed in the rules.

(xvii) To make joint appointments, appoint visiting and adjunct faculty, Professors of eminence and emeritus and honorary Professors as prescribed in the rules and Bye-Laws.

(xviii) To provide benefactions, such as medical, insurance, provident fund, pension, gratuity as may be deemed fit for the benefit of academic, technical, administrative and other staff of the NISc in such a manner and subject to such conditions as may be prescribed in the Bye-laws.

(xix) To approach and receive grants, donations, and monetary assistance from national and international agencies, individuals, corporates and industries from India and abroad.

Doc. 6476 71/6

(xx) To acquire by gift, exchange, transfer, lease, hire or otherwise any property movable and/or immovable for carrying on the activities of NISc.

(xxi) To construct, modify, improve, alter, demolish and dispose, repair buildings, structures, equipment, etc., as may be necessary or convenient.

(xxii) To draw and accept and make and endorse, discount and negotiate Govt. of India and other Promissory Notes, Bills of Exchange and or other negotiable instruments.

(xxiii) To set up pilot plants/ production ventures based on the knowledge generated on its own or in collaboration with industries or other agencies within and outside the country.

(xxiv) To maintain a fund to which shall be credited funds received from the University Grants Commission and other Govt. sources, private enterprises, industrial houses, national and international agencies and individuals and deposit these in nationalised banks and invest the surplus in term deposits as prescribed by the Rules.

(xxv) To create a reserve fund and corpus for further development of NISc, by receiving donation, interest on securities, etc.

(xxvi) To delegate such of its powers as it may deem fit to any authority or officers of NISc as prescribed in the Rules and Bye-laws.

(xxvii) To take over the present NISc, together with its assets and funds and to administer, manage and develop NISc according to this MOA.

(xxviii) To make, amend or rescind rules with the prior approval of the University Grants Commission. Major structural changes will be subject to the concurrence of the Govt. of India.

(xxvix) To do all acts including academic, financial, legal, social as may be necessary, incidental or conducive to the attainment of all or any of the objectives of NISc.

Doc. 69/7 71/7

6. The UGC shall have the right to cause an inspection or enquiry, by a person or persons as it may direct, of the NISc, its buildings, equipments, laboratories and its working, including administration and finance. After obtaining the views of the Governing Board, the UGC may take such action and issue such directions, as it may consider necessary on nay matter dealt with in the report.

7. The management of the affairs of the NISc is entrusted and vested with the Governing Council under the Rules and Regulations of the National Institute of Sciences, Pune and the first members of the Governing Council shall be:

	Name	Address	Age	Occupation/ Designation
1)				
2)				
3)				
4)				
5)				
6)				
7)				
8)				
9)				

The other members of the Governing Council as provided in the Rules and Regulations of the NISc will be nominated later.

8. We, the several persons, whose names and addresses are given below having associated ourselves for the purposes described in the Memorandum of Association and set our several and respective hands hereunto and form ourselves into a Society under Bombay Societies Registration Act in pursuance of this day of

Dor. ~~6-9-78~~ 7.1.8

	Name	Occupation	Address	Signature
1)				
2)				
3)				
4)				
5)				
6)				
7)				
8)				
9)				

The above persons have signed in my presence and I know these signatures.

Witness

Signature
Full Name:
Address :

Doc. 69/09 71/9

Certificate

9. Certified that there is no such other Society named, "National Institute of Sciences, Pune " and also not registered under Societies Registration Act 1860 to the best of our knowledge

Chairman University Grants Commission New Delhi	Vice Chancellor, Pune University, Pune	Director National Chemical Laboratory, Pune.

Doc. ~~69/10~~ 71/10

NCRA • TIFR

National Centre for Radio Astrophysics
TATA INSTITUTE OF FUNDAMENTAL RESEARCH

NCRA, POST BAG 3, GANESHKHIND, PUNE UNIVERSITY CAMPUS, PUNE 411007, INDIA
Telephone: 020 2569 7107,1384-5; (Res) 25899030; Fax: 020 2569 7257,25692149
Telex:0145-7658 GMRT IN;;Gram: RASTRON; Email: swarup@ncra.tifr.res.in

Prof. Govind Swarup, F.R.S.
INSA Honorary Scientist
Former Director, NCRA/GMRT

REF : SES/VGB/GS/
August 24, 2004

Hon'ble Shri Arjun Singh ji,
Hon'ble Minister for Human Resources
Development, Government of India,
Shastri Bhavan,
NEW DELHI

Subject: Proposal for Establishing Highly Innovative and Novel National Institute of Sciences (NISc)

Dear Sir,

We most earnestly request your kind guidance and strong support for setting up of highly innovative and novel National Institute of Sciences, sponsored by the UGC/MHRD and supported by various science agencies in the country to train and make available within the country, on a continuing basis, highly talented, highly skilled and highly motivated young boys and girls to man and lead research and development groups in various strategic areas pursued by our national science agencies and in the industry. National Institute of Sciences will conduct five year integrated educational programme leading to M.Sc degree in basic and applied sciences. Through its educational programme over 5 years, it will seek to evolve synergy between education and exploration, teaching and research, also between acquisition of knowledge and its utilization to solve the perceived problems of the society and the nation. NISc will thus perform a twin role of a first rate teaching university and that of a highly creative and innovative research institute. In a sense, NISc's will perform the same role in pure and applied sciences, as played by IIT's in technology and IIM's in management.

The proposal for NISc has the support of various science agencies of the Government and has been hailed by the entire scientific community in the country. A Detailed Project Report on NISc has been prepared and has been approved by the UGC. We understand that the proposal is awaiting External Finance Concurrence. We earnestly request your Honour to take the lead in obtaining the necessary approval of the Government so that we can admit students by July 2005. We may add that realizing the importance of the proposal, NCL/CSIR has agreed to make available 50 acres of land on the National Chemical Laboratory campus for housing the National Institute of Sciences. Pune.

Doc. 72/3 pages 72/1

Incidentally, we may mention that leading scientists, educationists, and industrialists in Pune had submitted a proposal to the Government in 1997 and in its detailed form in 1998 (Executive Summary enclosed in Appendix I), after it was debated by leading scientists and technologists in the country. This proposal received the support of the Planning Commission, heads of various science agencies, eminent scientists and science educationists in the country Indeed, Planning Commission recommended to MHRD to include the proposal in the IXth Five Year Plan. It also directed the Department of Science and Technology to release Rs.5 Crores to the University of Pune for preparatory work in this regard. Unfortunately, however, there occurred a change in the Government soon after and this novel proposal remained unimplemented.

The proposal was again revived when the Secretary MHRD convened two Inter Agency Meetings to consider the proposal. Once again it received the approval of various science agencies, planning commission and of the Department of Expenditure in principle and it was decided to set up National Institute of Sciences at Pune. But unfortunately, the proposal was not further pursued and remained unimplemented in the MHRD.

Fortunately, however, the University Grants Commission included a similar proposal in their 10th Five Year Plan. This proposal got included in the 10th Plan of the UGC and a token allocation of Rs.100 crores has been made for NISc's. UGC decided to set up four such NISc's at different places in the country including one at Pune. The entire scientific community hailed this decision. Indeed, Hon'ble President of India, Dr. A P J Abdul Kalam announced the creation of four NISc's in December 2003 at the Golden Jubilee celebration of the UGC and also on July 23, 2004 at the Indian Institute Science, Bangalore, on the occasion of the 100th year remembrance of Jamshedji Tata and JRD Tata.

NISc is indeed a response of a wide cross-section of the scientific community, eminent educationists and industrialists to the continual decline in the standards of science education, and to the recent disturbing trend on the part of young boys and girls to shy away from science on the one hand and the exacting demand for an increasing number of creative scientists in the country to seize unprecedented opportunities and to face formidable challenges that the emerging global scenario is going to offer.

It is indeed a great pity that such an innovative proposal supported by various science agencies of the Government, hailed by the scientific community and now piloted by the UGC has been languishing for the last six years. We would like to most humbly appeal to you to take personal interest in the proposal and with your strong support ensure that all the necessary clearances of the Government are obtained at the earliest so that NISc can admit students to this highly exciting educational and research programme by July, 2005. In doing this, you will be doing a signal service to the cause of science education which future generations will recall with gratitude.

Doc. ~~7672~~ 72/2

We are deeply conscious that you are extremely busy, but in view of the importance of the proposal and the associated urgency, we would like to request you to meet some of us at the earliest preferably in September 2004. We have lost so much time and hence this request. We will be deeply obliged if your office could convey to us the suitable date when we can meet you (please reply to Prof. G. Swarup at the address given above). We would be grateful for your early response.

With highest regards,

Yours sincerely,

Prof. V G Bhide
Former V C
Pune University

Prof. V S Gowarikar
Former Secretary, DST
Former V C, Pune University

Prof. A S. Kolaskar 24/8/04
Vice-Chancellor
University of Pune

Dr. V Bhatkar
Former Director
C-DAC, Pune

Dr. S Shivaram
Director
NCL, Pune

Prof. G. Swarup, FRS
Former Director
NCRA-TIFR, Pune

Shri P P Chhabria
Chairman, Finolex
Pune

Shri Arun Firodia
Chairman, Kinetic Engg. Ltd.
Pune

Dr. Naushad Forbes
Chairman and MD
Forbes and Marshall, Pune

Doc. ~~7773~~ ~~7273~~
72/3

सत्यमेव जयते

डॉ. के. कस्तूरिरंगन
Dr. K. Kasturirangan
संसद सदस्य (राज्य सभा)
Member of Parliament (Rajya Sabha)

'DAFFODILS'
No. 1, Flat No. 202, 6th Main, 19th Cross
Malleswaram, Bangalore - 560 055.
☎ + 91-81-23601969 (O)
+ 91-80-23445606 (R)

Respected Hon'ble Sri Arjun Singhji.

This is in connection with the communication from Prof Govind Swarup seeking an appointment with you to present the details about setting up National Institute of Sciences at Pune. I am aware of this initiative from Prof.Swarup and in my view this will be extremely an important and innovative step for bringing in a new dimension to improve the quality of higher education particularly in basic sciences. Knowing your deep commitment and concern for excellance I am sure you will appreicate this concept once they get an opportunity to brief you. I would very much apprcciate if you could kindly grant them some time in your busy schedule to hear about this very novel idea.

With personal warm regards,

Yours sincerely,

(K.Kasturirangan)

Shri Arjun Singh
Hon'ble Minister of Human Resource Development
Shastri Bhavan
New Delhi

✓Copy to Dr Govind Swarup, Pune.

Doc. 73/11. 75/1

NCRA - TIFR

National Centre for Radio Astrophysics
TATA INSTITUTE OF FUNDAMENTAL RESEARCH

NCRA, POST BAG 3, GANESHKHIND, PUNE UNIVERSITY CAMPUS, PUNE 411007, IN
Telephone: 020 2569 7107,1384-5; Res 25699030 Fax: 020 2569 2149 / 7257
Email : swarup@ncra.tifr.res.in; URL: http://www.ncra.tifr.res.in

Prof. Govind Swarup, F.R.S.
INSA Honorary Scientist
Ex Director, NCRA/GMRT

October 18, 2004

URGENT

Fax: 011 2371 0618

Dr. R. A. Mashelkar
Director General, CSIR & Secretary, Government of India,
Department of Scientific & Industrial Research
Council of Science & Industrial Research
Anusandhan Bhavan
2, Rafi Marg,
New Delhi- 110 001.

Dear Dr. Mashelkar,

1. Item 5.4 of the Enclosure with the 10th plan projection of Rs.100/- crores refers to "Advanced Centre for Science Education and Research",which is for ACST. I understand that Rs. 3294/- crores is an approved budget of UGC.

2. Item 5.3 refers to Inter University Centre and had typing mistake of Rs.13/- crores Correct is Rs.130/- crores as can be checked by totalling numbers.

3. Professor Bhide assures me that Rs. 100 crores was approved by UGC for two NISers at first (Pune & Allahabad) which became four in due course! (Pune, Allahabad, Bhubaneshwar & Chennai)

4. Our original proposal in 1997 was for ACST at Pune, which name got changed by Mr. Kaw, Educational Secretary to MHRD, in 1999 as ACSTE (E for education), by UGC to the name in para 1 above and later to NISc on behest of Professor Murali Manohar Joshi in 2004 and now we are referring to the original name as ACST or ACSTE in order to stress that our proposal is seven years old. Real Ping-Pong!. We would like to have your views regarding the name.

5. We request you to give us some time during your next visit to Pune.

With best regards,

Yours sincerely

Govind Swarup

G. Swarup

Fax

Dear Govind,

Today, I have sent a draft of a letter — to be sent by Smt Kapil Sibal to Smt Arjun Singh.

Warm Regds,

Doc. 74/1

74/1

Anb 15

Sector-wise summary of the schemes to be operated during 10th Plan

(Rs in crores)

Sector	Scheme	X Plan Projection
1.	General Development of Universities and Colleges	900.00
1.2.B	Unassigned grant, infrastructure for Women and Sports	180.00
1.2	General Development Grants for Colleges	535.00
2.1.	Focused Development of Universities	50.00
2.1.3.	Non-Formal Education	43.00
2.1.4.	Facilities for disadvantaged Groups	59.00
2.2.	Focused Development of Colleges	40.00
3.1.	Career orientation of Education	125.00
3.2.	Strengthening of Teaching Activities	120.00
3.3.	Innovative Schemes including Emerging Areas	40.00
4.1.	Universities and Colleges with potential for excellence	250.00
4.2.	ICT for teaching & learning process	202.00
4.3.	Professional Management of Education	150.00
5.1.	Special Assistance Programme (SAP) in Sciences and Engineering & Technology	225.00
5.2.	Special Assistance for Programme for Humanities, Social Science, Arts, Law and Allied Disciplines	100.00
5.3.	Inter-University Centres and National Facilities	13.00
5.4.	Advanced Centre for Science, Education and Research	100.00
5.5.	Research Award, Seminars and Workshops	45.00
	Total	**3294.00**

130=00

Doc. 75/7

Dear Dr MASHELKAR

(1) Item 5.4 of the Enclosure refers to Advanced Centre for Science Education and Research. Item 5.3 had typing mistake of Rs 13.00 crores (correct is Rs 130.00 crores) as can be checked by totalling numbers. Professor Bhide assures me that Rs 100 crores was for two NISc's at first (Pune + Allahabad), which become four in due course! (Pune, Allahabad, Bhubneshwer + Chennai).

241

(2) Our original proposal was for ACST at Pune (in 1997) which got named Christianed by Mr Kaw, Educational Secretary to MHRD in 1999 as ACSTE (E for education) and NISc on behest of Professor Joshi ~~as NISc~~ in 2004. Real ping-pong!

with best regards, Yours M.J. G. Swati

National Centre for Radio Astrophysics
TATA INSTITUTE OF FUNDAMENTAL RESEARCH

NCRA, POST BAG 3, GANESHKHIND, PUNE UNIVERSITY CAMPUS, PUNE 411007, INDIA
Telephone: 020 569 7107,1384-5; (Res) 5899030; Fax: 020 569 7257 5692149
Telex:0145-7658 GMRT IN;;Gram: RASTRON; Email: gswarup@ncra.tifr.res.in

NCRA • TIFR

Prof. Govind Swarup, F.R.S.
INSA Honorary Scientist
Former Director, NCRA/GMRT

O/C

October 19, 2004

Shri Arjun Singh,
Hon'ble Minister,
Government of India
Ministry of Human Resource Development
Shastri Bhavan,
NEW DELHI

Respected Sir,

We write this letter to express our deep and heartfelt gratitude to you for responding very promptly on 9th October,2004 (when we met with you at your residence along with Professor Yash Pal) to consider our long standing proposal for setting up a novel Advanced Centre for Science and Technology (ACST) at Pune and for having taken the kind initiative to convene a meeting on 12th October,2004 in your office, to which you were kind enough to invite Shri Kapil Sibal, Hon'able Minister, Science and Technology.

We were equally happy to note the strong and enthusiastic support of Hon'ble Shri Sibal, Dr. Mashelkar, Professor Yash Pal and others to our proposal of setting up ACST at Pune, to be sponsored by MHRD/UGC and co-sponsored by various science agencies and industry. Indeed, Dr. Mashelkar indicated that 50 acres of land will be made available on the campus of NCL,Pune for ACST. The ACST at Pune will collaborate with more than ten major research institutes in Pune including NCL and also interact fruitfully with science agencies of the Government of India and the Indian Industry. ACST will play a twin role of an exciting educational institution and that of a flourishing and innovative research institute working at the frontiers of science and at the cutting edge of technology.

It was the general consensus of the meeting that we should nucleate and start ACST at Pune immediately. As you are aware that our proposal is more than 7 years old. We request your approval at an early date, so that we can admit the first batch of students by July 2005, which would require a formal approval by the Government within the next couple of months

In due course, India will need a few more institutes of similar kind at appropriate places in the country which are ripe for active collaboration with nearby research institutes and industry, in order to interact fruitfully with science agencies in the Government and Industry in our country. Thus, the country would be assured of a supply of adequate number, on continuing basis, of highly talented, highly skilled and highly motivated young scientists and technologists who would participate and lead research efforts in strategic areas in our National Laboratories, universities and in industry to seize immense opportunities that the emerging global scenario is going to offer.

Sir, may we humbly state that moments come, but they come rarely in The history of a nation when wise decision and appropriate action can propel the nation to glorious future. May we respectfully submit that that the moment has arrived and you are privileged and destined to take that decision.

Once again we wish to express our deep indebtedness for your farsightedness and vision.

With respectful regards,

Yours sincerely,

Doc. 76: 1 page

76/1

sd/- by VG Bhide

(V.G. Bhide)
Formerly Vice-Chancellor
University of Pune

G Swarup

(Govind Swarup)
INSA Honorary scientist
NCRA-TIFR

242

NCRA • TIFR

National Centre for Radio Astrophysics
TATA INSTITUTE OF FUNDAMENTAL RESEARCH

NCRA, POST BAG 3, GANESHKHIND, PUNE UNIVERSITY CAMPUS, PUNE 411007, INDIA
Telephone: 020 2569 7107,1384-5; (Res) 25899030; Fax: 020 2569 7257,25692149
Telex:0145-7658 GMRT IN;;Gram: RASTRON; Email: swarup@ncra.tifr.res.in

Prof. Govind Swarup, F.R.S.
INSA Honorary Scientist
Former Director, NCRA/GMRT

16/
October 19, 2004

Hon'ble Shri Kapil Sibal,
Hon'ble Minister, Government of India,
Ministry of Science and Technology,
Anusandhan Bhavan,
Rafi Marg,
NEW DELHI

O/C

Dear Sir,

We were deeply impressed by your incisive perception of the maladies and inadequacies of the system of higher science education in the country and the urgent need to revamp the system at all levels by taking novel initiatives, and by your appreciation of the crying need of National Research Laboratories for having adequately qualified, skilled and motivated young boys and girls to participate and lead research groups in the absence of which National Laboratories would dry up, so beautifully articulated by you at the meeting held in the office of Hon'ble Shri Arjun Singh, Hon'ble Minister for MHRD on 12th October, 2004. We are indeed grateful to you, Dr. Mashelkar, Prof. Yash Pal, Prof. Ramamurthy and others for their strong support to our proposal to set up ACST at Pune, which will play a twin role of an exciting educational institution and productive research laboratory, collaborating with nearby research laboratories and interacting fruitfully with science agencies of the Government and Indian Industry.

As you very rightly pointed out that a big country like India brimming with young boys and girls full of vitality and motivation, would need a few more ACST's at appropriate places. It was very kind of you to have stressed that we should start the process by nucleating immediately the first ACST at Pune to be followed in due course by a few more at appropriate places. It was your farsightedness when you offered the strong support and major inputs from various science agencies, under your charge to the ACST at Pune.

As you are aware that our proposal for ACST at Pune is more than 7 years old! We hope that the Government would give a formal approval within the next couple of months so that we can admit the first batch of students by July 2005 using existing facilities and take active steps to fulfill our dreams and aspirations for India.

The country will be grateful if science agencies under your leadership and MHRD under the wise guidance of Hon'ble Shri Arjun Singhji take the lead in bringing about the much needed renaissance in the system of science education at all levels in general and at the tertiary level in particular. We could as well rope in private industries and ensure private public partnership in this national endeavor.

Sir, India is at the crossroad and at the threshold of glorious future which is bound to be dominated by science and technology. We can realize this glorious future only if we invest in a system of higher education in sciences and scientific research so as to ensure adequate supply, on a continuing basis, of an adequate number of highly talented, highly skilled and highly motivated young boys and girls who would participate and lead research and development groups in our national laboratories, in our universities and in industry.

77
Doc 77 : 2 pgs 77/1

May we most respectfully mention that moments come in the history of a nation but they come rarely, when a wise decision and appropriate action can propel the Nation to glorious future. May we humbly submit that, the moment has come now and you are privileged and destined to take that decision. Our first Prime Minister, Pandit Jawahar Lal Nehru committed the nation through Scientific Policy Resolution passed in Parliament to the path of Science and Technology. It is now your privilege to launch the Nation to greatness through putting in place a productive and exciting science education system fruitfully interacting, with appropriate feedback loops, with flourishing and innovative research and development system for their mutual benefit.

On our return to Pune from the Delhi meeting on 12th October, we noted your statement published in Indian Express saying that it is planned to establish NISc (ACST) at Pune. May we humbly mention that our revered President Dr. A P J Abdul Kalam had also announced similar decision at Bangalore at the time of J R D Tata Remembrance function in July 2004.

Once more, we wish to express our deep indebtedness for your farsightedness and vision.

Respectfully yours,

Yours Sincerely,

(V.G. Bhide)
Formerly Vice-Chancellor
University of Pune

Govind Swarup

(Govind Swarup)
INSA Honorary Scientist
NCRA-TIFR

Doc. 77/2

National Centre for Radio Astrophysics
TATA INSTITUTE OF FUNDAMENTAL RESEARCH

NCRA, POST BAG 3, GANESHKHIND, PUNE UNIVERSITY CAMPUS, PUNE 411007, INDIA
Telephone: 020 -2 569 7107, 1384-5; Res 25899030 Fax: 020 2569 7257/2149
Email : swarup@ncra.tifr.res.in; URL: http//www.ncra.tifr.res.in

NCRA • TIFR

Prof. Govind Swarup F.R.S
INSA Honorary Scientist
Ex. Director, NCRA/GMRT

October 28, 2004

To
Shri. Sundeep Benerjee, IAS
Additional secretary
Ministery of Human Resource Development
Dept. Of Secondary & Higher Education, GDI
Room No. 120 – C
Shastri Bhavan
New Delhi – 11 00 01

Dear Shri Banerjee,

1. We wish to convey to you our sincere thanks for your kind appreciation and support for the proposed "Advanced Centre for Science and Technology (ACST)" that was discussed in the meeting Chaired by the Hon'ble Minister for MHRD, Shri. Arjun Singh on 9th Oct 2004.

   As you are aware that the above proposal was at first submitted to the Member Education of the Planning Commission on 17th December 1996, with copies to MHRD and DST. The Planning Commission recommended to the Dept. of Eduction to include Rs. 5 crores in the 1997-98 budget but it not materialize due to change of the Government. Later it was supported by a Committee chaired by Shri. Kaw, Secretary to MHRD on 12th October 2004 and more recently became part of the proposed National Institute of Sciences(NISc).

2. The proposal has a great deal of uniqueness and innovation in the field of Higher Education in Science and related fields of its application to applied sciences and emerging fields of technology because we want to integrate teaching and research throughout the five years of education for highly talented and motivated students after their 10 + 2 schooling. We want to achieve this by a close collaboration between ACST and neighbouring National Laboratories and Industries. As you are aware that an attractive piece of land of about 50 acres has been offered by the National Chemical Laboratory (NCL) of CSIR at Pune for the proposed ACST.

   There are more than 10 major National Labs within 3 to 4 km radius of the NCL campus, and there are also several large industries and other educational institutions not far away. Thus there is a great deal of intellectual wealth which together can give exciting and meaningful education to talented students selected on all India basis to take up challenging problems in India during and after their 5 year education. This is the essence of our proposal. It may be noted

Doc. 80 78:2 pages 80/78/1

that the detailed Project Document (DPR) which was submitted to MHRD in 1998 was signed by 27 leading scientists, educationalists and industrialists in Pune. We assure you that the proposed centre at Pune for higher education coupled closely to research will make India proud within about a dozen years.

3. Lot of time has been lost since out initial proposal. We look forward to you personal interest to fructify it under the wise leadership and guidance of the Hon'ble Shri Arjun Singh. We very much hope that a formal clearance will be made within a couple of months so that the first batch of students can be admitted in July 2005, using existing facilities at NCL, a few nearby National Labs and the University of Pune. An appropriate name of the proposed Centre / Institute at Pune may be decided by the Hon'ble Minister,Shri Arjun Singh.

4. We would also like to bring to your kind attention that detailed Project Report had been prepared on giving aims & objectives, MOA, Rules & Regulation etc for NISc, Pune. We would be glad to send you a copy if you like us to do it.

With best regards

G. Bhide
Former, Vice – Chancellor
Pune University

G. Swarup
INSA Honorary Scientists
NCRA – TIFR, Pune

Doc. ~~89/12~~ 78/2

National Centre for Radio Astrophysics

TATA INSTITUTE OF FUNDAMENTAL RESEARCH

TIFR, Post Bag 3, Ganeshkhind, Pune University Campus, Pune 411007, INDIA
Tel: (Off) +91 20 2569 7107; (Res:) +91 20 25899030; Fax: +91 20 2569 2149

NCRA • TIFR

Formerly Director NCRA/GMRT
INSA Honorary Scientist

~~1st week~~
~~last~~
1st Nov 2004
same day as
H.K. Purushwani

Prof. A.S. Kolaskar
Vice-Chancellor
Pune University
Pune 411007

Dear Prof. Kolaskar

As desired by you I enclose the following , some of which you may use for the meeting with Shri Montek Ahluwalia.

1.Copies of letters to Hon'ble Shri Arjun Sigh and Hon'leShri Kapil Sibal

2. Executive Summary of our earlier proposal for Advanced Centre for Science and Technology Education (ACSTE). Same for NISC is not being forwarded as we do not know as to what name is being considered by Shri Arjun Singhji.

3. A copy of the Project Report for ICSEE for which we are requesting suppport from Sir Dorabji Tata Trust. As I told you that I am now meeting Dr Kakodkar on 4th morning , a day before the meeting on 5th November at TIFR. The meeting will be in room A414 (4th floor of A block). Please do join us by 12 noon or earlier.

4. Copy of a letter that I have sent to Shri Batliwalla of the Tata Trust today.

With best regards

Yours sincerely

Govind Swarup

(Govind Swarup)

Dor. 79: 1/92 79/1

No.F.5-18/2003-U.I
Government of India
Ministry of Human Resource Development
Department of Secondary & Higher Education
***

New Delhi, the 3rd November, 2004

Subject : Minutes of the Meeting on the setting up of an Advanced Centres for Science & Technology.

The undersigned is directed to forward herewith the minutes of the meeting taken by Sh. Arjun Singh, Hon'ble Minister for Human Resource Development on 12.10.2004 on the subject cited above, for information.

(Madan Mohan)
Deputy Secretary to the Govt. of India
Tele # 23385915

1. PS to HRM
2. PS to MOS(S&T)
3. Sr. PPS to Secretary (S & HE)
4. PS to AS
5. JS(HE)
6. JS(T)
7. Chairman UGC
8. Vice Chairman UGC
9. Secretary UGC
10. Prof. Yashpal, 11-B, Super Deluxe Flats, Sector-15-A, NOIDA (T.No.95120-2511362
11. Dr. Mashelkar, Chairman, CSIR
12. Dr.V.G.Bhide, Flat No.546, C/2 Kumar Classics Aundh, Pune – 411007 (Tel. # 25695201 (off.), 5882920 (resi.)

Doc. 80 : 5 Pages 80/1

Department of Education

Minutes of the Meeting on the setting up of an Advanced Centre for Science & Technology at Pune

---

A meeting regarding the proposal for setting up Advanced Centre for Science & Technology at Pune was held on 12.10.2004. It was presided over by the HRM. The Hon'ble Minister of State for Science & Technology and Ocean Development, Shri Kapil Sibal, Prof. Yashpal, Dr. Mashelkar, Chairman, CSIR, Dr. Bhide and other representatives of the scientists fraternity were present. MHRD was represented by ES, AS (E), JS(T) and JS(HE). UGC was represented by its Vice Chairman and the Secretary.

HRM in his opening remarks wanted to know as to whether the proposed Institute could not be set up at locations other than Pune.

Prof. Yashpal summed up the pending proposal for setting up the Advanced Centre for Science & Technology as a pilot / model for being emulated for enthusing young persons to pursue science education as a career. He mentioned that it would be an eminently workable model and while there were other possible locations for such an institution, the initiative having been taken by Prof. Bhide and others, Pune would be an excellent location.

Doc. 80/2

Shri Kapil Sibal, Minister of State for Science & Technology and Ocean Development, was of the view that more institutions of the kind would be required if the nation were to meet the increasing demand for scientific manpower. He mentioned that there was an acute dearth of scientists for our immediate and future needs.

Prof. Mashelkar mentioned about the potential for the country being sourced for scientific research by multinationals and others; and how this would snowball into a great demand for researchers in basic sciences. He also mentioned about the need for industry-research linkages; and how even Indian corporates, which had not been investing in research and development, had started doing so.

AS (E) put forward the viewpoint of the Ministry. He mentioned that the Ministry welcomed the basic idea for setting up centers of excellence in Basic Sciences. He pointed out the acute paucity of resources available for higher education in general, and also the competing claims for (a) strengthening the Undergraduate and Post-Graduate science education in colleges and universities including in the Central Universities; and (b) the need for resources for strengthening and expanding the integrated science programmes taken up by the IITs. He mentioned that several IITs had started programmes on Basic & Life Sciences as well, and all those would require additional resources. Therefore, it is not possible to implement the idea with the existing resources fo the Ministry.

MOS (S&T) suggested that a possible solution was to involve the private sector to invest in institutions.

Doc. 86/3

ES felt that in order to encourage the private sector for investments in setting up the similar institutions of excellence in Basic Sciences, which was absolutely necessary, a workable model would have to be initiated by the Govt. as a necessary first step.

Prof. Rajashekharan, Vice Chairman, UGC described the UGC's proposal for setting up of National Institutes of Science at Pune, Allahabad, Chennai and Bhubaneswar.

JS(HE) drew attention to the fact that the proposal for setting up of National Institutes of Science was a later development, and that originally the proposal was to set up an Advanced Centre of Science & Technology at Pune which subsequently was examined in the Ministry; at one point of time it had been decided in consultation with the Department of Bio-Technology, DRDO, Department of Electronics and CSIR to rename the Advanced Centre, as the National Institute of Science Education and Research. He also pointed out that the Scientific Advisory Committee of the Cabinet had set up a Committee which had proposed the setting up of Indian Institutes of Basic Sciences to be sponsored by IISc., TIFR etc; and that while the Ministry fully supported all these initiatives, resources had to be identified.

Prof. Mashelkar mentioned that once the first step was taken in the direction of setting up of such institutions, and there was agreement in principle, finding resources

Doc. 80/4

would not be a problem. He also mentioned that there was a proposal for declaring the CSIR to be a 'Deemed to be University.'

Prof. Yashpal commended the CSIR for applying for the status of a 'Deemed to be University.' Prof. Bhide mentioned that much time had already been lost since the proposal for setting up an Advanced Centre for Science & Technology at Pune was first mooted. He mentioned that Pune University was prepared to provide land for the purpose and that time was of the essence.

Finally, the HRM summed up by stating categorically that the time for action had come; and that both the Ministries of Science & Technology and Human Resource Development were agreeable, in principle, to set up Centers of Excellence in Basic Sciences. He agreed with the Minister of State for S&T that at least 10 centres would have to be set up – and finding the likely investment of an additional Rs. 1000 crores or so from Government of India's Budget outlays should not be difficult if efforts were jointly made. It was decided that Education Secretary would convene an inter-ministerial meeting to work out the modalities of implementing this idea, and prepare a note for the EFC/Cabinet.

Doc. 80/5

F.No.5-18/2003-U.I.
Government of India
Ministry of Human Resource Development
Deptt. of Secondary and Higher Education
U.I-A Section
***

New Delhi, the 30th November, 2004

OFFICE MEMORANDUM

Subject: **Minutes of the Meeting held by the Secretary (S&HE) on 17.11.2004 to work out the modalities for setting up Advance Centres of Science & Technology.**
****

The undersigned is directed to forward herewith the minutes of the above meeting, for information and necessary action.

(A.K. Khanna)
Under Secretary to the Govt. of India

Department of Science & Technology,
(Dr. V.S. Ramamurthy, Secretary),
Technology Bhawan,
New Mehrauli Road,
New Delhi
Fax No. 26863847

Council of Scientific & Industrial Research,
(Dr. R.A. Mashelkar, Director-General),
Rafi Marg,
New Delhi
Fax No. 23710618

Doc. 81 : 3 pages 81/1

MINUTES OF THE MEETING ON THE PROPOSAL TO SET UP ADVANCE CENTRES OF SCIENCE AND TECHNOLOGY

A meeting regarding the proposal for setting-up Advance Centre for Science and Technology at Pune was held on 12.10.2004 under the Chairmanship of the Hon'ble Minister of Human Resource Development. It was decided that Education Secretary would convene an Inter-ministerial meeting to work out the modalities for implementing the proposal.

2. In order to work out the modalities for setting-up the proposed centres, a meeting was taken by the Secretary(S&HE) on 17.11.2004 at 11.00 a.m. in his chamber.

3. The Ministry of HRD was represented by ES, AS(E), JS(T), JS(HE), JS&FA, DS(U.1) and US(U.1). Shri O.P. Agarwal from CSIR and Prof. Samir K. Brahmachari of the Institute of Genomics and Integrative Biology were also present at the meeting.

4. Initiating the discussions, Secretary(E) desired to know the proposed locations for setting up of Centres in addition to Pune. Shri Agarwal from CSIR stated that the proposed centres should be centers of excellence and not merely centres of education. JS(T) pointed out that some of the existing institutions may be upgraded so as to become advance centres of Science & Technology.

5. Secretary (E) suggested that while setting up such centres, issues in regard to the quality of research, infrastructure, prospects of foreign collaboration and public-private partnership should also be taken into account. The represeptative of CSIR stated that the proposed centres should be centers of excellence. Each centre could specialize in specific branches of sciences. AS(E) suggested that we should persuade the existing institutions to start undergraduate courses apart from these centres.

6. JS(HE) informed the group that the proposal submitted by the UGC was to set up such Centres at Allahabad, Bhubaneshwar, Chennai and Pune. The same was examined in the Ministry and the views of the Deptt. of Legal Affairs, Ministry of

---/-

Doc. 81/2

Law & Justice were examined. However, the Deptt. of Legal Affairs was of the opinion that the UGC Act did not empower the Commission to set up teaching institutions. JS&FA suggested that we should identify such institutions where facilities could be strengthened. JS(HE) mentioned that considerable hand-holding would be required on the part of the existing institutions such as the IISc., TIFR, Bose Institute etc. and their proximity to such Institutions should be taken into consideration while deciding on the locations. JS(HE) suggested that the Project Report prepared by the UGC may be circulated among existing institutions situated at Pune, Bhubaneshwar, Chennai, Allahabad, Calcutta, Delhi and Cochin. ES felt that after taking into account the funding, social infrastructure etc. such centers could also be established in places like Hyderabad, Chandigarh, Goa and Ahmedabad. AS(E) suggested the drafting of an Act on the lines of the IIT Act. Keeping in view the views involved in establishment of such Centres, Secretary(E) felt that a dialogue with the private sector would generate ideas for encouraging private partnership in setting up these Centres.

7. It was decided that a group of eminent persons could be invited for a meeting on 16.12.2004 at 1.00 P.M. at 2, Lodhi Road, Science Centres, New Delhi to firm up the views on setting up of the Centres. The group would comprise (i) Dr. Govardhan Mehta, (ii) Dr. Shiva Ram (iii) Shri Vijyaraghavan (iv) Prof. C.N.R. Rao, (v) Dr. Sidharth Roy (vi) Shri Ashok Sen and (vii) Prof. S.K. Brahmachari.

Box Inst

8. The meeting ended with a vote of thanks to the Chair.

****

Doc. 81/3

पुणे विद्यापीठ
गणेशखिंड, पुणे-४११००७.
University of Pune
Ganeshkhind, Pune-411007.

अशोक कोळस्कर
पीएच.डी., एफ.एन.ए., एफ.एन.ए.एस्सी.
कुलगुरू

A. S. Kolaskar
Ph.D., FNA, FNASc.
VICE-CHANCELLOR

दूरध्वनी : (कार्यालय) २५६९३८६८
(निवास) २५६९०७६५

Telephone : (O) 020-25693868
(R) 020-25690765
Fax : +91 20 25693233
E-mail : (O) puvc@unipune.ernet.in
kolaskar@bioinfo.ernet.in

VC/ACSTE/
December 1, 2004

Dear Professor

We are writing this letter to seek your help and guidance to expedite the decision to setup highly innovative and novel **"Advanced Centre for Science and Technology Education (ACSTE)"** at Pune to serve as a model for other similar institutions that may be set up at other places in the country in the future.

This proposal was briefly discussed at a meeting held in the office of Shri Arjun Singhji, Hon'ble Minister for Human Resource Development on 12th October,2004 in response to our letter dated August 24, 2004 (copy enclosed). This meeting was attended besides us, by Shri Kapil Sibal, Hon'ble Minister for Science and Technology, Dr. R A Mashelkar, DG,CSIR, Prof. Yash Pal, Prof. V S Ramamurthy, Secretary, DST and officials of the department of education of MHRD.

In pursuance of the decision taken at that meeting, we understand that the Education Secretary convened another meeting at which it was decided to send a copy of the proposal for setting up Advanced Centre for Science and Technology Education at Pune to a group of experts for their comments and suggestions. It was further decided to convene a meeting of these experts on 17th December, 2004 at 11:00 a.m. at the Science Centre, New Delhi to take a final decision and to initiate action for setting up of this centre at Pune as a model for other similar centres that may be set up at other places in the country in the future. We understand that this meeting will be chaired by Education Secretary and Co-chaired by Dr. Mashelkar.

We were delighted to understand that you have been nominated as one of the experts. We are confident that with your vast experience and rich expertise of the system of science and technology education at the tertiary level and the system of Research and

Doc. 84 : 23 pages 84/1

Development in the country, not only a quick decision will be taken to establish ACSTE at Pune to serve as a model, but with your advice, ACSTE will also benefit considerably in terms of formulating its organizational structure and its academic programmes and objectives. We would like to request you to kindly urge on the Education Secretary to issue all the necessary sanctions for the Pune Centre latest by end of January 2005 so that the first batch of students could be admitted in June-July 2005 and the ACSTE at Pune starts functioning with the existing facilities of the University NCL and other research laboratories at Pune.

This proposal has a long history of about seven years and although the proposal received the support of the Planning Commission, Science agencies of the Government of India and a wide cross-section of the scientific community, it has unfortunately remained unimplemented so far. We are enclosing copies of the correspondence and the minutes of meetings held in this regard during the last seven years.

Although ACSTE proposal has very many unique and novel features, its principal objective is to train and make available within the country, on a continuing basis, an adequate number of highly talented, highly skilled and highly motivated young boys and girls to participate and lead research and development groups in nationally important and strategic areas in our national science agencies and in Indian Industry.

ACSTE will conduct a five year integrated educational programme after 10+ 2 level leading to M.Sc. degree and in some cases to M.Tech degree i.e. post graduate degree in basic and applied sciences. Through its five year educational and training programme, ACSTE will seek to evolve synergy between education and exploration, teaching and research, pure and applied research, between acquisition of knowledge and the ability to use the acquired knowledge to solve the perceived problems of the society. Thus ACSTE will perform the twin role of an exciting first rate teaching university and that of a highly innovative and flourishing research and development Institute. In a sense ACSTE will perform the same role in pure and applied sciences as played by IIT's and IIM's in technology and management respectively.

We are enclosing a background note, a copy of the detailed project proposal and an executive summary thereof for your information.

ACSTE is indeed a well considered response of a wide cross section of scientific community, eminent educationists, science administrators and industrialists in the

country to the continual decline in the standard of science education and to the disturbing recent trend of bright young boys and girls shying away from science, on the one hand, and to the exacting demands for a number of creative scientists and technologists to seize unbelievable opportunities and to face unimaginable challenges that the emerging global scenario is likely to offer on the other hand.

We will be grateful if you strongly support the proposal and help to expediate its implementation so that the ACSTE at Pune will serve as a model for similar institutions that may need to be set up at other places in the country in future.

In our considered opinion, establishment of ACSTE at Pune will satisfy the long felt need and bring about the much needed reformation and renaissance in system of higher education in pure and applied sciences.

In case you need any further information or clarification on certain points, please do not hesitate to write. We will be more than happy to supply.

We also enclose copies of the letters that we wrote to Shri Arjun Singhji, Hon'ble Minister for Human Resource Development and to Shri Kapil Sibal, Hon'ble Minister of State Science and Technology and Ocean Development after the 12th October meeting. We will like to emphasize once again the sentiments expressed in these letters.

With kind regards,

Yours sincerely,

Govind Swarup

(G Swarup) FRS
National Centre for
Radio Astronomy

(Ashok Kolaskar)
Vice-Chancellor,
University of Pune

(V G Bhide)
Former Vice-Chancellor
Pune University

Encl.: I. Copy of our letter dated 24th August to Hon'ble Minister HRD.
2. Correspondence and minutes of the meetings held during the last seven years concerning this proposal.
3. Executive Summary of the project proposal.
4. A copy of the detailed project proposal.
5. Copies of our letter to Hon'ble Shri Arjun Singhji and Hon'ble Shri Kapil Sibal after the 12th October meeting.

84/3

Background and Executive Summary of the Proposal for setting up Highly Innovative and Novel Advanced Centre for Science and Technology Education at Pune, as a model for similar institutions that may need to be set up at other places in the country in the future.

1. Background :

In December 1996, some Senior Scientists and industrialists of Pune conceived Advanced Centre for Science and Technology Education as their well considered response to the continual decline in the standards of Science Education at the teritiary level and to the recent disturbing trend of bright young boys and girls to shy away from science on the one hand and to the exacting demands for the supply of an adequate member of highly trained, highly skilled, and highly motivated scientists and technologists, on a continuing basis, to participate and lead research and development groups in nationally important and strategic areas in our science agencies and in Indian Industry on the other. The concept was informally discussed with a large number of scientists and technologists, science administrators and eminent educationists. The concept document was formally submitted to Member (Education) Planning Commission (Appendix-1). Copies of the document were also submitted to the Department of Education, Ministry of Human Resource Development, Government of India and the Department of Science and Technology on 2nd February, 1997. In response to the proposal, Secretary, Department of Science and Technology vide his letter No.D.O./DST/PS1997, dated 12/2/1997 wrote that "The proposal seems interesting and needs to be pursued. Our preliminary reaction is supportive" (Appendix-2) and suggested the submission of a detailed project report.

On 4th January, 1997, Member (Education) Planning Commission wrote to Secretary, Department of Education, MHRD, recommending (Appendix-3) to the Department of Education to support the proposal and to include Rs.5 crores in the 1997-98. Annual Plan of Department of Educaiton for ACST. This was followed by another letter dated 4th April 1997 (Apprndix-4) in which the Member (Education) Planning

84/4

Commission mentioned that "as a result of extensive discussion held with the scientists who have drafted the proposal, I am personally convinced that this innovative (ACST) can give the necessary direction for modernization of higher education in Science and is therefore worthy of support from the Eigth Five Year Plan".

The Minister of State for Power and Science and Technology, Government of India expressed his support to the proposal for setting up the Advanced Centre for Science and Technology in his letter dated 2nd July,2997 (Appendix-5). Indeed in his speech at the Inauguration of Indian Science Congress at Hyderabad in January,1997, he publicly commended the proposal.

On 2nd September 1997, Secretary Department of Science and Technology convened an Inter Agency meeting in his office to consider the proposal. This meeting was attended among others by representatives of the Planning Commission, Chairperson, UGC and representatives of various science agencies(Appendix-6). The meeting expressed an unanimous opinion that 'there is need for creation of such a centre for excellence and for improvement of the quality of science education. It further recorded that 'there is a need for such a centre and that this proposal is a new and novel experiment and may be viable as an independent model of centre of excellence by channelizing the funding from various agencies and industry. It was further decided that based on the views of the Planning Commission and S and T agencies, Pune University will take followup action with HRD for getting the clearances and finalizing the various modalities.

On 20th March, 1998, Department of Educaiton, MHRd, wrote to Pune University vide their letter No.D.O. FS-91-97-U,I requesting the University to take up the follow up action in pursunance of the decision arrived at the Inter Agency Meeting of 2nd September, 1997 (Appendix7).

84/5

Pune University requested the Department of Science and Technology to approve a sum of Rs.ten lakhs for the preparation of the Detailed Project Report, some time in June 1998.

Department of Science and Technology issued a sanction for Rs.Ten lakhs as requested by the University on 21/9/1998 (Appendix-8) for the preparation of the Detailed Project Report. Detailed Project Report was prepared in two parts. This Detailed Project Report was signed by original proposers of ACST (Appendix-9).

This detailed Project Report in two parts was submitted to both the Department of Education, MHRD and to the Department of Science and Technology. The proposal was discussed with the research scientists from several research Indsitutions in Pune such as NCL, ARI, NIV, ARDE, R & D Engineers, IUCAA, NCRA, NCCS etc., who not only ehthusiastically supported the proposal but also pledged to collaborate whole heartedly with ACSTE in its educational and Research programmes. The proposal also received strong support from major industries in Pune such as Kinetc, Finolex, Forbes and Marshall, Kirloskar, Firodias etc. Having secured the support of various research organizations and industries in Pune, a brain storming session was convened on 25th and 26th March,1999 (vide letter from Vice-Chancellor Pune University dated 3rd March,1999 (Appendix-10). The list of invitees is given in (Appendix-11). The invitees included eminent scientists, technologists from reputed research and development laboratories in the country and eminent professors from IIT's and several Universities.

The proposal was discussed in detail at this brain storming session in which nearly 50 scientists and technologists from all over the country participated. The minutes of the Brain Storming Meeting are enclosed in (Appendix-12).

Education Secretary in MHRD convened an Inter Agency Meeting on 29/10/1999 to discuss the proposal. The minutes of the Inter Agency Meeting are shown in (Appendix_13). The List of Participants of the said Meeting is given in Appendix-13A). At this Inter Agency meeting, representatives of DBT, ISRO, DOE,DOS,DST and DRDO supported the proposal following decisions were also taken:

84/6

1. The Centre should be know as Advanced Centre for Science and Technology Education.
2. Department of Education shall be nodal department for processing the proposal in consultation with various agencies.
3. The proposal would be taken up with the Ministry of Finance and Planning Commission for exploring the possibility of securing initial investment for establishment of the Centre.
4. The Project report would be forwarded to the world bank and Asian Development Bank also for exploring the possibility of sourcing the required funds.
5. A separate allocation should be earmarked in the Annual Plan of HRD for 2000-2001 for the establishment of the proposed centre. A provision of Rs.50.0 lakhs may be suggested. The Ministries of Biotechnology, Space, Electronics, Science and Technology and DRDO may also keep a provision of Rs.10.0 lakhs each so that they can provide Rs.50.0 lakhs in all during the year 2000-2001. In this way, there would be a total provision of rs.1.0 crore for the next financial year for the initial start-up activities.
6. UGC will examine the possibility of conferring deemed university status on the centre right from its inception as envisaged in the revised guide lines.

Education Secretary took another Inter Agency meeting on 22.5.2000 to review the status of the proposal for the establishment of Advanced Centre for Science and Technology Education. Minutes of the meeting are shown in (Appendix-14).

In this meeting it was suggested that a meeting should be held with Dr. A P J Abdul Kalam, the then Principal Scientific Advisor to the Government wherein Secretaries from different Science Departments should also invited to discuss the proposal for setting up of centre for Science and Technology Education at Pune.

84/7

It was also decided that in the meantime, steps may be taken to prepare a draft EFC memo for circulation to all the concerned for comments.

Although this meeting could not be convened, Dr. Kalam expressed his strong support for the proposal at the Jubilee function of the UGC and once again at the JRD Tata remembrance function held at Bangalore.

Unfortunately, however, the IXth Five Year Plan ended and the proposal remained unimplemented.

Fortunately, University Grants Commission included a similar proposal in their 10th Five Year Plan. This proposal got included in the UGC Xth Five Year Plan and an allocation of Rs.100 crore has been made for four such centres, renamed as National Institute of Sciences.

It is indeed a great pity that such an innovative proposal supported by various science agencies of the Government of India, hailed by the Scientific Community, piloted by the UGC now once again revived by MHRd (to be discussed at a meeting on 17th December,2004) has been languishing for the last seven years. We would most humbly appeal to the members attending this 17th December meeting to take personal interest in the proposal and with your strong support ensure that all the necessary clearances of the Government are accorded at the earliest so that ACSTE can be established at Pune early enabling the admission of the first batch of students by June-July,2005. We propose to start the functioning of ACSTE at Pune by July 2005 using the existing educational and research facilities of the University of Pune, NCL, and other research laboratories.

84/8

Detailed Project Report

Advanced Centre for Science and Technology Education

A proposal by

Dr. R.K. Arora
Executive Director C-DAC

Dr. Vijay Bhatkar
CMD, ETH, Pune

Prof. V.G. Bhide
Ex-VC, Pune University,
Pune

Shri. P.P. Chhabria
CMD Finolex Group, Pune

Dr. D.N. Deobagkar
Dept. of Zoology
University of Pune
Pune

Shri. Abhay Firodia
CMD, Bajaj Tempo, Pune

Dr. Naushad Forbes
Forbes & Marshall, Pune

Dr. D.A. Gadkari
Director, NIV, Pune

Dr. V.R. Gowariker
Ex-VC Pune University,

Dr. Hardwar Singh
Director, HEMRL
Pune,

Shri Atul Kirloskar
CMD, Kirloskar Oil
Engines, Pune

Dr. G.C. Mishra
Director, NCCS, Pune

Prof. S.S. Mani
Director, IAT, Pune

Prof. J.V. Narlikar
Director, IUCAA, Pune

Prof. A.S. Nigavekar
VC, Pune University, Pune

Prof. G.B. Pant
Director, IITM, Pune

Shri. Pratap Pawar
President, MCCI Pune

Dr. R.J. Rathi
CMD, Sudarshan
Chemicals. Pune

Dr. Paul Ratnaswamy
Director, NCL, Pune

Dr. E.C. Subbarao
Director, TRDDC, Pune

Prof. G.Swarup FRS
Ex-Prof. Emeritus, TIFR
Homi Bhabha Senior Fellow

Dr P.J. Lavakare,
Former Exective Dir., USEI , New Delhi.

Dr. Y.R. Waghmare
Former Dean, IIT Kanpur

For further information please contact Prof. V.G. Bhide, Department of Physics,
University of Pune, Pune-411 007.

8/4/9

Executive Summary

I. Why ACSTE?

The proposal to establish Advanced Centre for Science and Technology Education (ACSTE) is a well considered response of a wide cross-section of the scientific community, science administrators, educationists, industrialists and the Government to the alarming and continual decline in the standards of education in pure and applied sciences and to the extremely disturbing and increasing trend on the part of bright young boys and girls to shy away from science on the one hand and to the increasingly urgent need to make available within the country, on the continuing basis, an adequate number of highly trained, highly skilled and highly motivated scientists and technologists to participate and lead research and development groups in nationally important and strategic areas in our science agencies, national laboratories, universities and in industries, to seize unbelievable opportunities and to face unprecedented challenges that the emerging global scenario increasingly dominated by science and technology, is likely to offer. Both these have assumed alarming proportions and desperate urgency, and as the Indian Academy of Sciences study report has cautioned that unless something is urgently done to retrieve and remedy the situation, the country will surely be heading for a disaster.

II. Aims and Objectives of ACSTE,Pune

2.1 Although ACSTE,Pune will have very many novel, unique and innovative features to remove the lacunae in the present system of education in pure and applied sciences, its main objective is to make available in the country, on a continuing basis, an adequate number of highly talented, highly skilled and highly motivated young boys and girls to man and lead research groups in nationally important and strategic areas in our science agencies, national laboratories, universities and in industries. ACSTE is designed to serve as a model for similar institutions that may need to be set up at other places in the country in the future.

84/10

2.2 ACSTE, Pune is designed to bring about reformation and renaissance in the system of education in pure and applied sciences so that the products of ACSTE will be in the vanguard of a new ethos in scientific research and technology development so that the country assumes its rightful place in the comity of nations commensurate with rich human resources and long tradition of original thinking and scholarship, as also to enable the country to develop economically so that the poverty that has afflicted this nation for nearly thousand years is banished once and for all.

2.3 ACSTE, Pune will mark a complete departure from the existing system of education in pure and applied sciences practiced in our colleges and universities, in concept, structure and functioning. ACSTE, Pune will have complete academic autonomy and the desired flexibility, and will bring teaching and research, education and exploration in close physical contiguity and in intimate intellectual contact which is sadly lacking in the present system. Thus, ACSTE will seek to create an ambience of innovativeness and intellectual adventure in which young minds will be highly motivated and inspired to put in their best.

2.4 ACSTE at Pune will perform the twin role of a first rate teaching university and highly creative and flourishing research institute. The assigned role of the ACSTE at Pune is a result of our firm conviction that the most effective and efficient form of teaching occurs through discussion with peers and happens when teaching and learning are viewed as an adventure in discovery. There is no better stimulant for young minds than to see discoveries and inventions occurring in their midst and in their presence.

2.5 ACSTE will be a composite pure and applied science teaching, research and development institute. This composite structure is deliberately envisaged because the present fast growing technologies and emerging challenging technologies will essentially be science based and it is only those who have a firm grounding in basic sciences will alone be able to contribute to and develop science based technologies. Incidentally, it may be mentioned that today in the country, we have separate and non interacting pure science and

applied science (engineering and technology) education system, with the result those who opt for engineering and technology courses do not have good grounding in basic sciences with the result that those institutions produce maintenance engineers and not innovative technologists. In contrast, those who go in for pure science education are not even remotely made aware of the applications to which their science could be used.

2.6 ACSTE,Pune will be a teaching-cum research institute in contrast to the present system in which teaching is relegated to the universities and research and development is carried out in national laboratories. This separation of teaching from research has not remained a temporary aberration but has become a permanent fixture harming the interest of both. ACSTE, Pune will be serving a twin role of a teaching university and innovative research laboratory, where peers working at the frontiers of science and at the cutting edge of technology will inspire the young ones, and the questioning of the peers by young and inquisitive students will enhance the working life of the savants.

2.7 The teaching and research activities of ACSTE will be centred round four schools namely (i) School of Basic Sciences, (ii) School for Advanced and Speciality materials including nano materials, (iii) School for electronics, communication, information science and technology, and (iv) School for life sciences, genetic engineering, biotechnology, bioinformatics etc. The school of Basic Sciences will be at the core and will feed into other schools. The choice of these areas is deliberate and conscious, as these are the areas that are fast growing and will pose rewarding challenges. Few more areas may be added depending upon the needs of the local industry and the emerging trends. For example, Pune is fast becoming global auto hub, being the home for two wheeler and four wheeler industry. Local industry is urging to mount major research and development programme in the area of automobile engineering and technology particularly on auto electronics, noise and vibrations etc.. In a sense, these areas are not sacro-sanct but can be increased or reduced.

84/12

2.8 Besides providing state of the art research and development facilities in the above areas, that will enable the scientists/students/faculty to work at the frontiers of science and at the cutting edge of technology. ACSTE will offer a five year integrated educational programme after higher secondary level leading to M.Sc. degree and in some special cases to M.Tech degree.

2.9 ACSTE's education programme will lay emphasis on (a) acquisition of knowledge and information, (b) acquisition of all kinds of skills (computational, communication, design and fabrication, simulation and animation, and (c) inculcation of right kinds of attitudes, and outlook to promote social commitment.

2.10 ACSTE will thus lay emphasis on (a) Learn how to Learn (b) Learn how to Do and (c) Learn how to Live.

2.11 In ACSTE, teaching laboratories and research laboratories are proposed to be brought under the same roof and in close physical contiguity so that students right from day one can participate in creative endevours and see creativity oozing out of the peers in the research laboratories.

2.12 ACSTE will provide for a large menu of courses from which students can choose according to their liking and aptitude, in consultation with their faculty advisors. The choice will not only be possible within a given stream but will also be available across the streams and beyond. The educational programme will have enough flexibility to cater even to the needs of exceptional individuals like Ramanujam who exhibit special insight and commitment to any given discipline or sub discipline. Such individuals will not be bound by the conventional course structure but will have the freedom for full advancement in their chosen field at their pace.

2.13 Admission to the integrated five years educational programme at ACSTE,Pune will be based on merit and merit alone. Merit at the entrance will be determined on the basis of performance of a candidate at a well designed national competitive entrance test and personal discussion with the faculty.

84/13

2.14 There will be common courses for all students in the first year. In the first year, students will be exposed to basic physical principles, mathematical tools and techniques, computers and computational techniques, statistical analysis, basics of life sciences and to the current excitement in life sciences. In the laboratory, students will be enabled to learn various skills and techniques (high vacuum, low temperature, analytical etc.),to carry out open ended investigations. Students will be expected to carry out some open ended investigations and projects.

2.15 Besides formal lectures, packed with demonstrations, there will be tutorials and problem solving sessions.

2.16 In order to broaden their horizon, lectures will be organized every week on various topics such as science and society, philosophy of science, economic policies, human rights, patents, intellectual property rights, WTO etc.

2.17 In each course there will be emphasis on (a) acquisition of knowledge and information, (b) cultivation of all kinds of skills and related tools and techniques, application of known knowledge to solve unknown problems and (c) inculcation of desired attitudes and outlooks conductive to social commitment

2.18 Although there will be continuous assessment throughout the year, there will be rigorous examination at the end of the first year to find out whether a student is able to cope with this exciting and exacting educational programme.

2.19 At the end of the first year, students will indicate their choice by opting for courses from amongst a large menu of courses, in consultation with the faculty advisor.

2.20 At the end of the third year, there will be an aptitude cum ability test to find out students aptitude for further studies in basic or in applied sciences. If for some reason, student wishes to drop out or is unable to pursue further studies, he may be allowed to drop out with a B.Sc. degree.

2.21 After successful completion of three year programme essentially in basic sciences, a student will proceed to study for another two years in his chosen field of specialization in areas of basic and applied sciences.

84/14

2.8 Besides providing state of the art research and development facilities in the above areas, that will enable the scientists/students/faculty to work at the frontiers of science and at the cutting edge of technology. ACSTE will offer a five year integrated educational programme after higher secondary level leading to M.Sc. degree and in some special cases to M.Tech degree.

2.9 ACSTE's education programme will lay emphasis on (a) acquisition of knowledge and information, (b) acquisition of all kinds of skills (computational, communication, design and fabrication, simulation and animation, and (c) inculcation of right kinds of attitudes, and outlook to promote social commitment.

2.10 ACSTE will thus lay emphasis on (a) Learn how to Learn (b) Learn how to Do and (c) Learn how to Live.

2.11 In ACSTE, teaching laboratories and research laboratories are proposed to be brought under the same roof and in close physical contiguity so that students right from day one can participate in creative endevours and see creativity oozing out of the peers in the research laboratories.

2.12 ACSTE will provide for a large menu of courses from which students can choose according to their liking and aptitude, in consultation with their faculty advisors. The choice will not only be possible within a given stream but will also be available across the streams and beyond. The educational programme will have enough flexibility to cater even to the needs of exceptional individuals like Ramanujam who exhibit special insight and commitment to any given discipline or sub discipline. Such individuals will not be bound by the conventional course structure but will have the freedom for full advancement in their chosen field at their pace.

2.13 Admission to the integrated five years educational programme at ACSTE,Pune will be based on merit and merit alone. Merit at the entrance will be determined on the basis of performance of a candidate at a well designed national competitive entrance test and personal discussion with the faculty.

84/13

2.14 There will be common courses for all students in the first year. In the first year, students will be exposed to basic physical principles, mathematical tools and techniques, computers and computational techniques, statistical analysis, basics of life sciences and to the current excitement in life sciences. In the laboratory, students will be enabled to learn various skills and techniques (high vacuum, low temperature, analytical etc.),to carry out open ended investigations. Students will be expected to carry out some open ended investigations and projects.

2.15 Besides formal lectures, packed with demonstrations, there will be tutorials and problem solving sessions.

2.16 In order to broaden their horizon, lectures will be organized every week on various topics such as science and society, philosophy of science, economic policies, human rights, patents, intellectual property rights, WTO etc.

2.17 In each course there will be emphasis on (a) acquisition of knowledge and information, (b) cultivation of all kinds of skills and related tools and techniques, application of known knowledge to solve unknown problems and (c) inculcation of desired attitudes and outlooks conductive to social commitment

2.18 Although there will be continuous assessment throughout the year, there will be rigorous examination at the end of the first year to find out whether a student is able to cope with this exciting and exacting educational programme.

2.19 At the end of the first year, students will indicate their choice by opting for courses from amongst a large menu of courses, in consultation with the faculty advisor.

2.20 At the end of the third year, there will be an aptitude cum ability test to find out students aptitude for further studies in basic or in applied sciences. If for some reason, student wishes to drop out or is unable to pursue further studies, he may be allowed to drop out with a B.Sc. degree.

2.21 After successful completion of three year programme essentially in basic sciences, a student will proceed to study for another two years in his chosen field of specialization in areas of basic and applied sciences.

84 / 14

2.22 Unique feature of ACSTE, Pune's academic programme is the internship programme in the last semester of the fifth year and the adjoining summer vacation. During the intership programme students will carry out research and development project in any of the laboratories of science agencies such as DAE, ISRO, DBT, DRDO, CSIR, ICMR, ICAR etc., or in industry. In the case of students, pursuing basic sciences, they will spend their internship tenure with an eminent Professor in their areas of specialization in reputed research laboratories such as TIFR, II Sc, or in some reputed university.

2.23 In some special cases, bright engineering and technology graduates having B.E. or B.Tech degree will be admitted for their two year M.Tech programme in any of the three schools namely (i) School for electronics, communication, information sciences and technology, (ii) School for advanced and specialtymaterials and (iii) School for life sciences, genetic engineering, biotechnology etc.

2.24 Similarly, outstanding B.Sc's from reputed university may be admitted after suitable screening for their M.Sc. degree.

2.25 ACSTE,Pune will be furnished with the state of the art research facilities in chosen areas so that the students and the faculty could carry out research at the frontiers of science and at the cutting edge of technology.

2.26 The success of ACSTE,Pune is critically dependent on the quality of the faculty. Extreme care will be exercised in recruiting the faculty. The basic underlying philosophy in choosing the faculty will be that only the very best that the country can afford shall teach in ACSTE,Pune. In view of the paucity of such man power, after very careful consideration, it is proposed that the faculty should be of the following categories namely (a) Core Faculty (b) Joint appointees on invitation from national research institutes at Pune namely NCL, IUCAA,NCRA, NCCS, C-DAC and from the University,(c) visiting faculty from other prestigious research institutes, laboratories, universities in the country and even from abroad and (d) Adjunct Professors from industries. To be invited to be a visiting faculty at ACSTE should be considered as an honour.

84/15

2.27 At any given point of time, the ratio of core faculty to other categories of faculty may be about 50:50. At any given point of time, the visiting faculty from abroad is expected to be around 10%. The total faculty is not expected to exceed 200.

2.28 Although ACSTE,Pune will grow over the years, the enrolment in the first few years will be limited to 150-200. This number will grow over the years but in no case this number should exceed 300.

2.29 ACSTE,Pune will develop over the years to its full stature as a world class educational, research and development institution similar to Stanford, MIT or Cal.Tech.

2.30 Although ACSTE,Pune will have its Core research and development programme, its major effort will be on sponsored research and development, sponsored by national science agencies and Indian industry.

2.31 ACSTE,Pune will be intimately associated with Indian Industry and will evolve working partnership and strategic alliance with industry for industries diversification, technological updating, exploiting new concepts and technologies developed at ACSTE,Pune. It is hoped that like in Advanced countries, ACSTE,Pune will grow in stature and usefulness out of active interaction and working alliances with major industries. Such an alliance will help industries to underwrite a large fraction of research funding of ACSTE,Pune and in turn, ACSTE,Pune will help industries to flourish and diversify.

2.32 Students will be admitted to ACSTE,Pune for their research degrees through competitive examination such as JEST.

2.33 For its research and development activities, ACSTE,Pune will function in the partnership and collaborative mode with various national laboratories, science agencies of the Government, supplementing and complementing each other's R & D efforts in the chosen field. Indeed, a consortium approach has been agreed to in between ACSTE,Pune and various R & D Laboratories and industries in Pune.

84/16

2.34 Unique feature of ACSTE,Pune is its close linkage with its beneficiaries, namely science agencies, national laboratories, industry etc.. These beneficiaries should have a stake in ACSTE and should collaborate in not merely conceptualization and concretization of ACSTE,Pune but also in funding, administering and monitoring of ACSTE,Pune.

2.35 ACSTE,Pune being a new experiment in the field of higher education in pure and applied sciences and very different in concept, structure and functioning from the conventional university system, it will be against the very spirit of the experiment to impose on it the established structure of a conventional university. Neither will it be desirable and indeed, it would be sucidal to make it a part of any existing university.

2.36 After careful consideration and taking into consideration the functioning of institutions such as IIT's, IIM's, TIFR,IISc., it is proposed that ACSTE,Pune should be set up as an autonomous society registered under Society Registration Act 1860. This society should be sponsored by MHRD which will serve as the nodal ministry of the Government of India for the purpose of ACSTE,Pune and cosponsored by science agencies of the Government such as DAE,DBT, CSIR,ISRO, DOE, DST etc., and major industries. In a sense, ACSTE,Pune will be sponsored by its beneficiaries who will not only participate in the conceptualization and concretization of ACSTE,Pune but also in the funding, administering and monitoring of the ACSTE.

2.37 As in the case of Indian Institutes of Technology, IIM's which were initially set up as autonomous societies and later declared as Institute of National importance through an Act of Parliament, it is hoped that in few years time, ACSTE,Pune will also be declared as an Institute of National importance which will empower ACSTE to award its own educational and research degrees.

2.38 In the mean time, ACSTE should be awarded the Deemed to be University status right from its inception in accordance with the new guide lines drawn for the purpose and as decided in the Inter Agency meeting convened by the

84/17

272

Secretary, Department of Education, MHRD on 29/10/1999. In a sense, ACSTE will play the role in basic and applied sciences as played by the IIT's and IIM's in the field of technology and management respectively.

2.39 ACSTE society will have its General Body, Governing Council, Academic Advisory and Review Committee, Academic Faculty Committee's for courses etc. The Director of ACSTE will be the Chief Executive and Academic Officer of the ACSTE,Pune.

2.40 The Governing Council of the ACSTE will be the policy making and Executive Body of the ACSTE, Pune on the same lines as the Institute Council of IISc., or the Board of Governors of the IIT's.

2.41 ACSTE,Pune will have Academic Advisory and Review Committee which will provide major inputs in the formulation, monitoring, and evaluating, teaching and research programmes of ACSTE, and shall play an important role in the academic audit of ACSTE.

2.42 The Academic Advisory and Review Committee shall have seven eminent scientists/technologists nominated by the Governing Council of which not less than two shall be eminent scientists/technologists from prestigious institutions abroad such as Stanford, Cambridge, MIT, Cal Tech. etc.

2.43 With a fundamentally different guiding philosophy and with intension of making it a non-feudal, internally democratic, exciting institution devoted to creativity, innovativeness and entrepreneurship, all academic, administrative and scientific matters in ACSTE,Pune will be decided by the Committees of the Faculty. Administration will serve the institution only in relation to administrative matters and by providing secretarial and other assistance to the Academic Faculty.

84/18

3. Financial Implications:

3.44 ACSTE,Pune will eventually be a fully residential institution with most of the faculty and some technical and administrative personnel living on the campus. ACSTE,Pune as it is planned, will need about 50 acres of land. It is gratifying that the National Chemical Laboratory/CSIR has, realizing the importance of ACSTE has kindly agreed to make available on its campus a piece of land, about 50 acres, for ACSTE,Pune. It is fortunate that ACSTE,Pune will have the academic and research ambience of this prestigious institution as well as the possibility of sharing excellent infrastructural and other facilities such as library, laboratories, information system etc., More importantly, the student of ACSTE,Pune will have an excellent opportunity of interacting with eminent scientists of the NCL and in turn, the NCL scientists will have the advantage of interacting with young enthusiastic students of the ACSTE,Pune. Indeed, it is such a dialogue between the young enthusiastic and inquisitive students and mature, experienced peers that leads to the advancement of the frontiers of knowledge as well as increase in the creative life of the savants in the field. Indeed this is the very basic philosophy of the ACSTE,Pune. Following this example, ACSTE,Pune will forge similar productive links with other national science agencies such as DAE,ISRO, DBT, etc.

3.45 Being close to the university and yet shielded from the politics of the conventional university, ACSTE will have an unique opportunity of interacting profitably with research institutes on the university campus such as IUCAA,NCRA,NCCS,C-DAC, National Centre for Free Radical Research Centre of the DAE (NCFRR,Pune) as well as with the University. Pune is unique for locating ACSTE because of (a) the academic ambiance it provides, (b) proximity with a prestigious university (UoP), (c) presence of several (nearly twenty) national research and development laboratories under CSIR,DRDO,DST, etc., within a radius of about 3 kilometers from the campus of the ACSTE. A number of major industries supportive of ACSTE philosophy are located in Pune. In addition Pune has the maximum number of

technologically oriented small scale entrepreneurs in the country. Fortunately, Pune is also fast developing as a major IT and BT hub in the country.

3.46 ACSTE will grow over the years and it is hoped that within ten to 15 years, it will attain its full envisaged stature.

3.47 ACSTE will need funding for buildings : (a) Lecture room complex, (b) teaching and research and development laboratories, (c) Library, (d) hostels, guest house,(e)staff quarters etc.,

3.48 ACSTE,Pune will also need funding for equipment required for teaching and research laboratories as well as for academic and research staff, consumables etc. A tentative Master plan for the campus has been prepared.

3.49 The detailed Project Report gives the details of the financial implications for civil works, equipment and necessary expenditure for staff, chemicals, services, library etc. The total financial implication, namely capital and recurring expenditure over the remaining period of the 10th Plan, the 11th Plan and the 12th Plan works out to nearly 200 crores. The envisaged expenditure in the remaining period of this plan is estimated Rs.50 crores. The envisaged outlay in the 11th and the 12th Plans is Rs.75 and Rs.75 crores respectively.

4. Generation Resources:

4.50 The required resources are sought to be generated through a variety of sources such as (1) Fees (2) Grant from the nodal agency namely MHRD, (3) Resources from national science agencies, (4) Resources from industry (5) Resources from international agencies and (6) Resources from Non-Resident Indians.

4.51 Fees : It is proposed to charge a fee of Rs.40,000/- per year per student. Local industries have proposed to set up Education Finance Corporation which will make available to students educational loan at nominal interest.

4.52 Grants from MHRD: ACSTE, Pune will be sponsored by MHRD and cosponsored by various science agencies. During the remaining part of the 10th Five Yea. Plan, we expect that MHRD will sanction and make available a sum of Rs.50 crores.

84/20

4.53 Resources from Science Agencies: National Research agencies such as DAE,CSIR,DBT,DST,MIT,ISRO,DRDO etc., who would so-sponser ACSTE at Pune are expected to fund ACSTE. One of the modes through which these agencies can support ACSTE, is (a) creation of Chairs, (b) providing for research infrastructure and by funding research projects. We expect that through this mechanism, ACSTE will be able to generate Rs.80 crores over a period of ten years.

4.54. Resources through Industries : Through this mechanism, it is hoped to establish six chairs and to set up four educational or two research laboratories. It would, however, be necessary to provide income tax rebate on the donations made available to ACSTE,Pune at least 100% of the donations if not 125% of the donations. Preliminary discussions with local industry has indicated that industries would be willing to (a) establish chairs, (b) sponsor research projects and fund them.

4.55 Resources from International agencies: There are several international agencies, such as World Bank,IMF, Asian Development Bank, UNDP, European Commission who would be approached for providing funding to set up ACSTE at Pune and for project funding. Through this source, we hope to generate Rs.50 crores over the next fifteen years.

4.56 Resources from Non-Resident Indians: Non Resident Indians who have flourished in several foreign countries have an emotional attachment to their motherland and are keen and willing to support credible educational and social development programmes. We intend to tap this source and hope to generate around Rs.50 crores over the period of fifteen years.

4.57 We feel confident that if ACSTE,Pune is established along the lines indicated above, it will not be diffcult to generate enough resources for its growth and future development.

4.58. The concept of ACSTE,Pune, its structure and functioning is a result of the collective wisdom of a large number of eminent practicising scientists, science educators, science administrators and industrialists who are not only intimately aware of the ills and lacunae of the present system of education in

84/21

276

pure and applied sciences, but also of the exacting needs of the emerging scenario. Hopefully, ACSTE will serve as a model for similar institutions that may need to be set up at other suitable places in the country, in the future. Hopefully, this model, in course of time, will be duplicated at other places in the country and will seep into our present conventional system so that it can be transformed to become creative and innovative temples of learning and powerful instruments of social change and economic growth.

5. Prayer :

5.59. The original proposal of ACSTE at Pune was made by a number of senior scientists and industrialists in late 1996. The proposal has been discussed at various fora and by various committees. It is a pity that the proposal is still lying unimplemented even after seven years, although it received the approval of a wide cross-section of scientists/technologists, Planning Commission, Department of Education GOI, DST etc.

5.60. Considerable precious time has been lost. It is humbly prayed that the decision to implement the proposal be taken immediately and all the necessary sanctions are issued by end of February 2005, the latest, so that the first batch of students is admitted by June-July 2005 and that the ACSTE starts functioning on the campus of NCL,Pune by 15th August,2005.

5.61 May we submit that moments come, but they come rarely when a wise decision can propel the country to glorious future. We believe that that moment has come now.

Our first Prime Minister, Pandit Jawaharlal Nehru committed India to Science and Technology through scientific policy resolution. It is now time to take decision to launch India to the path of glory by establishing ACSTE at Pune to be followed by similar institutions at suitable places in the country.

84 /22

Appendices :

I. Letter dated 24th August,2004 to Shri Arjun Singhji, Hon'ble Minister for Human Resource Development.

2. Concept document submitted to Member (Education), Planning Commission on 17th December, 1996.
3. Letter from Prof. V.S.Ramamurthy, Secretary, D.S.T. dated 12th February 1997.
4. Letter dated 7th January,1997 from Member (Education), Planning Commission to Shri Dasgupta, Secretary, Education.
5. Letter dated 4th April 1997 from Member (Education), Planning Commission, to Shri Dasgupta, Secretary, Education, MHRD.
6. Letter from Prof. Alagh, Minister of State, For Power,Science and Technology dated 2nd July,1997 to Prof. G.Swarup.
7. Minutes of the Inter Agency Meeting on the proposal for ACST, held on 2nd September, 1997 at 10:00 a.m. in the Department of Science and Technology.
8. Letter dated 20th March,1998 from Shri Lalmal Sawma, Director, Department of Education MHRD. To Dr. Gowariker, Vice-Chancellor, Pune University regarding ACST.
9. Copy of the sanction letter of DST dated 21-9-1998 sanctioning Rs.ten lakhs for Detailed Project Report for ACST at Pune.
10. Letter dated 3rd March,1999 from Vice-Chancellor, Pune University inviting scientists, technologists, educationists for a brain storming session on 28th and 26th March 1999.
11. List of invitees for the Brain Storming Session held on 25th and 26th March,1999.
12. Minutes of the Brain Storming Session held on 25th and 26th March,1999.
13. Minutes of the Inter Agency Meeting held by Education Secretary, MHRD on 29-10-1999.

13A. List of participants of the Inter Agency Meeting held on 29-10-1999.

14. Minutes of the Second Inter Agency Meeting convened by Secretary (Education) MHRD to review the status of ACST, held on 23-05-2000.
15. Copy of a letter dated 16th October 2004 to Shri Arjun Singhji, Hon'ble Minister, Human Resource Development.
16. Copy of the letter dated 16th October,2004 to Shri Kapil Sibal, Hon'ble Minister of State, Ministry of Science and Technology.

84/23

National Centre for Radio Astrophysics

→ GS

TATA INSTITUTE OF FUNDAMENTAL RESEARCH
TIFR, Post Bag 3, Ganeshkhind, Pune University Campus, Pune 411007, INDIA
Tel: (Off) +91 20 2569 7107; (Res:) +91 20 2589 9030; Fax: +91 20 2569 2149
email: swarup@ncra.tifr.res.in; URL: http://www.ncra.tifr.res.in

NCRA • TIFR

Prof.Govind Swarup, F.R.S.
INSA Honorary Scientist
Formerly Director, NCRA/GMRT

URGENT 11th February 2005

FAX - 011 23385807

Shri B.S. Baswan
Secretary
Dept. of Secondary and Higher Education
Ministry of Human Resource Development
Shastri Bhavan
New Delhi- 110001

Subject: Advanced Centre for Science and Technology(F. No. 5-18/2003-U.I.)

Dear Shri Baswan

I would be greatly obliged if you could give me your valuable time for about 10 or 15 minutes to discuss the proposal of Advanced Centre for Science and Technology sometimes during 18th February afternoon (after 230 pm) to 22nd February afternoon (before 230 PM) when I would be visiting Delhi.

As you are aware that Prof. V.G.Bhide and me have been pursuing this innovative proposal for the last 8 years. We are glad to note that the Hon'ble Minister for Education , Shri Arjun Singhji, yourself and others have supported it in our meeting on 17th November 2004 held at MHRD, when I was also present. We have been told that the proposal for setting up at Pune was supported in the next meeting held on 16th December 2004 at Delhi.

Some of us who have contributed very actively to the growth of scientific endeavour at the frontiers of science in India over the last several decades are very concerned about lack of suitable educational facilities for young boys and girls to join the science and related disciplines and take India to be among the best in the world. The essence of our proposal is an innovative teaching and research programme in close collaboration with the National Scientific Institutions and Industry.

We are keen not to loose further time so that ACST is established in the 50 acre plot offered by NCL. Pune at the very earliest. Your help and guidance is essential to meet the above vision.

With best regards,

Yours Sincerely

Govind Swarup

Doc. 85 : 1 page 85/1 (Govind Swarup)

INDIAN EXPRESS : March 5, 2005

The Sunday PUNE Newsline

Anupam Kher says Censor Board issue is passe

... pg 3

For F1 fans in Pune it is life in the fast lane

... pg 10

skywatch

TEMPERATURE: MAXIMUM 34.1 degrees C and MINIMUM 14.8 degrees C SUNRISE: 0650 SUNSET: 0184 MOONRISE: 0327 MOONSET 1431

PUNE | MARCH 6, 2005

No more sulking. Pune gets Rs 500-crore science varsity

Seven years after the first proposal, now a university to integrate science education with research and technology

EXPRESS NEWS SERVICE
MARCH 5

WHEN the Union Cabinet on Friday gave an in-principle nod and Rs 500 crore for setting up a world-class National Research and Education University in Pune, it was a culmination of seven years of relentless pursuit by a team of eminent scientists from the city to integrate science education with technology, research and industry. So, if Bangalore's Indian Institute of Science (IISc) made it to Finance Minister P Chidambaram's Budget speech, the Oxford of the East has been more than compensated by the government.

In fact, in 1998, honorary scientist of the Indian Science Academy Govind Swarup along with the then vice-chancellor of University of Pune V G Bhide submitted a project for setting up an advanced centre for science and technology. The mission: to start an integrated five-year course after +2.

But it took them seven years to convince the successive governments about the importance of the project. Today, Swarup and Bhide are happy. "It is a dream come true," says Bhide.

"The government had been playing snake and ladder with our proposal. But with this move, Pune can outshine every other centre as the seat of scientific learning," adds Swarup.

With this move, Pune can outshine every other centre as the seat of scientific learning. Nobody believes in India — neither the parents nor the students. The science university will at least give people the confidence that we have the capability

GOVIND SWARUP

For, Swarup says such a concentration of research institutes — NCL, IUCAA, NCRA, NIV, the list is endless — doesn't exist anywhere in the country. "Nobody believes in India — neither the parents nor the students. This (the science university) will at least give people the confidence that we have the capability. We have to build that up so that people do not have to go abroad to get scientific training. Science education cannot be separated from research and technology."

And Swarup believes that Pune, which is the educational town and a vibrant industry, will be the right place for such a project. The other place that the government plans to set up the science university is Kolkata. "Despite being a communist State, Kolkata has good scientific institutes. It is the right choice," he says.

Bhide says it is a new concept with a different philosophy that will guide this university. "It will have an integrated course that will cater to time and discipline, science and education and pure and applied science."

Besides, it will also involve working with the best in industry and research. Perhaps, that is one of the reasons that Pune Inc, too, had pitched in with Swarup and Bhide for setting up an advanced science centre.

"The whole idea was that people should study science. Finally, the progress of the country depends on science. The aim is to create scientists and take research to a level where India can be in the area of cutting edge technology," says Kinetic Group chairman Arun Firodia.

But Bhide believes that there should be a close collaboration with research institutes and the university. "The university structure is rigid and not flexible and that has to change," he says.

And Swarup gives a warning. "It has to percolate down to schools and colleges and it should network with it. Otherwise there is no point in creating a university," he adds.

But for now, the industry and the scientific community is on a wait and watch mode to see what shape it will take.

Doc. 86 : 1 page

Snake and ladder

on 4/3/05

86/1

Doc. 87

Rs 500-crore varsity proposal thrills scientists, academics

Times of India : TOINS March 6 '05

TIMES NEWS NETWORK

Pune: With the Union cabinet approving the setting up of a Rs 500-crore deemed university in Pune, the city's scientific-academic community is excited.

While scientist-academicians like V.G. Bhide, Bhushan Patwardhan and Rajendra Jagdale, among others, welcomed the announcement, Council for scientific and industrial research (CSIR) director Gen. R.A. Mashelkar told TNN that the proposed institution would be built on CSIR land in the National chemical laboratory (NCL) premises at Pashan.

The Union cabinet on Friday gave approval, in principle, to the setting up of the two universities in Pune and Kolkata at a cost of Rs 500 crore each. The cabinet also approved the establishment of a world-class National science and research foundation, along the lines of the National science fund, US.

"We have just one world-class institute of science currently at Bangalore, and definitely need more across the country. The government's plan, therefore, envisages setting up of two new universities of sciences in Pune and Kolkata initially, and later, similar institutes in other parts of the country," Mashelkar said.

He said the Rs 500-crore plan was inspired by the proposal submitted by former University of Pune vice-chancellor V.G. Bhide and emeritus professor Govind Swarup. Scientists and academics said the objective of the national university "will not be to replicate existing universities", but to offer an environment of excellence, along with freedom and flexibility, to revive interest in basic sciences and research.

"The existing university system is rigid and inflexible. We do not want yet another university, but an environment where syllabus is updated after a year or two, and not after 15-20 years," Bhide said.

He said it was proposed that this centre should offer students the freedom to choose from a number of courses.

Rajendra Jagdale, director, Science and technology park, Pune, told TNN, "The dearth of good students for serious scientific research has become a matter of grave concern. It is this concern that is behind the setting up of new university in Pune."

Welcoming the announcement, Bhushan Patwardhan, head of the University of Pune's School of health sciences told TNN that the nation needs world-class institutes with autonomous status to meet the challenges of a liberalised environment in a post-GATT (General agreement on tariffs and trade) environment.

Doc. 87 : 1 page 87/1

Doc. ~~87~~ 87

UNIVERSITY OF PUNE पुणे विद्यापीठ

PROF. V. G. BHIDE
F.N.A.F.A.Sc. F.N.A.Sc.

- Former scientist (Director Grade) National Physical Laboratory, New Delhi.
- Former Vice Chancellor, University of Pune.
- Former Director, Inter University Consortium
- Emeritus Professor, University of Pune.
- CSIR Emeritus Scientist

School of Energy Studies
Physics Department, Pune - 411 007
Phone : (91 20) 5695201
Fax : (91 20) 5695201
E-mail :vgb@physics.unipune.ernet.in

उर्जा अभ्यास प्रणाली
पदार्थ विज्ञान विभाग पुणे - ४११ ००७
फोन - (९१ २०) ५६९५२०१
फॅक्स - (९१ २०) ५६९५२०१
ई-मेल - vgb@physics.unipune.ernet.in

SES/VGB/
March 7, 2005

To
Hon'ble Shri Kapil Sibal, Hon'ble Minister,
Government of India, Ministry of Science and Technology,
Anusandhan Bhavan, Rafi Marg, NEW DELHI

Dear Sir,

We are writing this letter to convey our own indebtedness and that of the entire scientific community in the country for the initiative that you took in the recent decision taken by the Union Cabinet to establish National Science Education and Research University (Institute) at Pune and at Kolkata, as well as creating an agency similar to National Science foundation in United States to fund and support research programmes and proposals from universities, research institutions in the country.

We are personally so grateful to you because it is a dream come true for us as we were struggling to get such an Institution established at Pune for the last seven years. You may kindly recall that in the meeting we had in the office of Hon'ble Arjun Singhji, Hon'ble Minister for MHRD on 12th October,2004, you personally and Dr. Mashelkar along with Professor Yashpal and others had pleaded strongly for establishment of an Institution that we then called Advanced Centre for Science and Technology Education (ACSTE). We are enclosing herewith a copy of the letter that we had written to you on 16th October, 2004, on our return from Delhi after attending the above mentioned meeting.

We once again express our deepest gratitude to you for your strong support in realizing our dream.

We might mention, as we did in our letter of 16th October, 2004 that our first Prime Minister Pandit Jawaharlal Nehru committed the nation through Scientific Policy Resolution passed in the Parliament to the path of science and technology. It is now your privilege and that of Hon'ble Prime Minister Shri Manmohan Singhji to launch the nation to greatness by putting in place a productive and exciting science education and research system fruitfully interacting, with appropriate feed back loops, with flourishing research and development system for their mutual benefit.

Respectfully yours

Signed
(V G Bhide)

G. Swarup
(Govind Swaroop)

Doc. 88 : 1 page
88/1

282

Res. : Flat No. 5 & 6, C/2, Kumar Classics, Aundh, Pune - 411 007. Tel No. (91 20) 5882920

KINETIC

ARUN FIRODIA
Chairman

KINETIC ENGINEERING LTD.
D1 Block, Plot No. 18/2, MIDC,
Chinchwad, Pune - 411 019. (INDIA)
Tel. : Board : 091-20-27474301-5
Res. : 091-20-25654510/25655338
Fax : Board : 091-20-27475843
Direct : 091-20-27475841
E-mail : ahf@kineticindia.com
Internet : www.kineticindia.com

March 09, 2005

Dr. Govind Swarup
Director,
National Centre for Radio Astrophysics
Tata Institute of Fundamental Research
Pune University Campus,
Ganeshkhind, Pune 411007

Dear Dr. Govind Swarup :

I am delighted to know that the Government has finally cleared the proposal to set up National Institute of Science in Pune and has also given a grant of Rs. 500 crores and 100 acres of land. I know for sure that this is the outcome of your unstinted and tireless efforts of over 7 years.

I therefore heartily congratulate you and Dr. Bhide for this landmark project.

I believe we need to start the important part of implementing this project in right earnest. If there is anything I can do, please let me know.

With warm regards,

ARUN FIRODIA

Doc. 89 : 1 page 89/1

F. No. 22-5/2005-TS.I
Government of India
Ministry of Human Resource Development
Department of Secondary & Higher Education
Technical Section – I
*****

New Delhi, the 18th March, 2005

OFFICE MEMORANDUM

Subject : Constitution of Expert Group

The Scientific Advisory Council to the Prime Minister (SAC – PM) in its first meeting held on 04.03.2005 at New Delhi under the Chairmanship of Prof. C. N. R. Rao recommended creation of two new Institutions devoted to Science Education and Research to be named "National Institute for Scientific Research & Education (NISRE)" likely to be located at Pune and Kolkata. The financial requirements for these Institutions was recommended at a level of Rs. 500 crores for each institution over a period of five years. It was also agreed that more such institutions at different locations would be considered subsequently.

2. For the purpose of writing the Charter of NISRE to ensure that objectives, goals and modalities are properly defined, Hon'ble Minister of Human Resource Development has approved constitution of a Committee of Experts consisting of the following: -

1. Dr. S. Sivaram, Director, National Chemical Laboratory, Pune — Member
2. Dr. P. Balaram, Chairman, Div. of Chemical Sciences, Indian Institute of Science, Bangalore — Member
3. Shri. Sudeep Banerjee, Additional Secretary, M/Human Resource Development, New Delhi — Member
4. Dr. Sanjay G. Dhande, Director, IIT, Kanpur. — Member
5. Dr. S. Dattagupta, Director, Dr. S.N. Bose Centre for Basic Sciences, Kolkata — Convenor

(Ravi Mathur)
Joint Secretary to the Government of India

Copy to: Chairman / Members of the Committee.

Doc. 90/1 90/1

New file
NISER
Seen by PN 1/7/05

F No. 22-5/2005-TS.I
Government of India
Ministry of Human Resource Development
Department of Secondary & Higher Education

New Delhi, the 30th June, 2005

OFFICE MEMORANDUM

Subject: Constitution of Local Committee for implementation of the Charter of "National Institute for Scientific Education & Research (NISER)" at Pune and Kolkata.

The Scientific Advisory Council to the Prime Minister (SAC – PM) in its first meeting held on 04.03.2005 at New Delhi under the Chairmanship of Prof. C. N. R. Rao recommended creation of two new Institutions devoted to Science Education and Research to be named "National Institute for Scientific Education & Research (NISER)" likely to be located at Pune and Kolkata.

2. For the purpose of writing the Charter of NISER to ensure that objectives, goals and modalities are properly defined, a Committee of Experts was constituted by Hon'ble Minister of Human Resource Development (copy enclosed). The Committee has since submitted the "Charter" of NISER.

3. As per item 13 of the modalities worked out by the Expert Group in the Charter of National Institute for Scientific Education and Research (NISER) " In order to launch NISER and do a more detailed planning of activities leading upto the commencement of the academic session in 2006, a Planning Committee with local and national membership may be constituted for each of the two locations as early as possible". Accordingly, Hon'ble Minister of Human Resource Development has approved constitution of the Local Committee for implementation of NISER in Pune and Kolkata.

4. The Local Committee for implementation of the Charter of NISER in Pune will consist of the following: -

1.	Dr. S. Sivaram, Director, National Chemical Laboratory, Pune 2589 3030	Chairman
2.	Prof. Govind Swarup, (Physics and Astrophysics), Former Director NCRA, Pune.	Member
3.	Prof. V. G. Bhide (Physics), Former Vice Chancellor, Pune University, Pune	Member
4.	Prof. M.S. Raghunathan, (Mathematics), TIFR, Mumbai	Member
5.	Dr. R. Nityananda, (Astronomy and Astrophysics) Director, NCRA, (TIFR) Pune	Member
6.	Prof. J.B. Joshi (Engineering Sciences), UICT, Mumbai	Member
7.	Prof. A. Kolaskar (Biological Sciences), Vice Chancellor, Pune University, Pune.	Member

Doc. 91 of 2 pages 91/1

8. Prof. Dipankar Chatterji, (Molecular Biology), IISc, Bangalore — Member
9. Prof. D. Balasubramanian (Physical Sciences), L.V. Prasad Eye Institute, Hyderabad 2354 8271 — Member
10. Dr. Javed Iqbal (Chemical Sciences), Dr. Reddy's Laboratories, Hyderabad — Member
11. Prof. N. Karmarkar (Computational Sciences), Computational Mathematics Laboratory (TIFR), Pune — Member
12. Dr. S. Pal, Head, Physical and Materials Chemistry, NCL, Pune 2589 3044 — Member
13. Dr. K.N. Ganesh, Head, Organic Chemistry, NCL, Pune. 2589 3163 — Convenor

5. Similarly, the Local Committee for implementation of the Charter of NISER in Kolkata will consist of the following: -

1. Prof. Bikash Sinha, Director, Saha Institute of Nuclear Physics, Kolkata — Chairman
2. Prof. Debashish Mukhopadhyay, Director, Indian Institute for Cultivation of Science — Member
3. Prof. Shankar Pal, Indian Statistical Institute, Kolkata — Member
4. Prof. S. Chandrasekhar, Director, ISI Kolkata — Member
5. Prof. R. Balasubramanyam, Director, Institute of Mathematical Science, Chennai. — Member
6. Prof. C. Bhattacharya, Director, TIFR Mumbai — Member
7. Prof. S.C. Lakotia, BHU Varanasi — Member
8. Prof. Raghavendra Gadagkar, IISc., Bangalore — Member
9. Dr. Sanjay Dhande, Director, IIT Kanpur — Member
10. Prof. S. Dutta Gupta, SN Bose National Centre for Basic Sciences, Kolkata — Convenor

30/6/05

(Hulas Singh)
Director
Ph. 2338 4245(O), 2338 8253(F)

Copy to:- Chairman/Members of the Committee

91/2

Date: Thu, 1 Sep 2005 19:09:49 +0530 (IST)
From: Govind Swarup <swarup@ncra.tifr.res.in>
To: sdgupta@bose.res.in
Cc: sushantad@gmail.com, Dr Sivaram <sivaram@ems.ncl.res.in>, kng@ems.ncl.res.in
Subject: Feasibility Report dated 31-o8-05 re:IISER

Dear Sushanta

I have gone over the Report given by you yesterday which is a revised (edited) copy of that circulated at the meeting.

There are some minor corrections but there are four major points.
I do hope you would consider these as well as some of the minor corrections before the Document is finalized (I have not checked spelling mistakes in my email!).

1. No of students admitted each year in due course.

1a) On page 3 (Summary) and page 21 it has been written that each institute will have approximately 1000 students in the Intagrated Master's Programme and an additional 1000 post B.Sc and Post M.Sc. for doctoral programme. I strongly advise to change it to 1250 for Integerated Master's programme and 750 for post B.Sc and Post M.Sc. for doctoral programme with 250 students admitted in due course for the Integerated Master's Programme each year, only (i) 50 post B.Sc. and (ii)100 post M.Sc for doctoral programme. My reasons are discussed below. I have also discussed with Prof. Bhide who is also of the above view.

1b) On page 21 para 3 it is further stated that about 120 students will be admitted in the post B.Sc category and 100 in the post M.Sc category. Further, on Page 15 it has been stated that only 20% of IISER students are expected to opt for a Ph.D. programme. This implies that only 40 IISER M.Sc. graduated students are expected to be selected for a doctoral programme each year, 60 M.Sc. students from other universities and 120 post B.Sc students. The question is what is IISER doing? Let us analyze these numbers. We are expecting that IISER's education will be top class so that it would prepare students to be creative and imaginative to work at the frontiers of basic science and related discipines. We should aim to take up to 75 of IISER' students (who would be participating in research through the 5 years and should be quite good material to work on top class problems at IISER and nearby collaborating institutes), 40 post B.Sc. and 35 post M.Sc from elsewhere. We should not aim like IITs where most of the very bright B.E. students go abroad and research is mostly carried out by B.E. students from across India joining for a 2 year M.E./M.Tech degree.

2. Budget forecast in the EFC memo.

Originally the projected budget was Rs 500 crores for 7 years. In the copy that you have given me it is Rs 300 crores. If that is on the advice of MHRD, then you could say Rs 500 crores over 10 years.

3.Governance:Page 24

It is important to modify the statement that "The board will be constituted by the Government of India and rules and procedures for the same will be framed similar to those applicable for IITs and in consultation with the Committee of experts appointed by the MHRD Notification (18/3/2005), with membership criterion to be discussed with the Local Committees appointed by MHRD vide Notification dated 30th June 2005.

4. Another rather sensitive point: I believe that it is fair and required in my view in the section 8 ; CLOSURE OBSERVATIONS: last para 3rd line from bottom: you may add after community "The decision has been taken after extensive discussions in the academic community over the last 15 years e.g. recommendations of the Indian Academy of Science and proposals by educationalists,scientists and industrialists in Pune.

Doc. 92/: 3 pages 92/1

(Sushanta: As you are fully aware that the Pune group has devoted many many months in convassing the 5 year programme and many of the points in the Feasibility report are the same as highlighted in the Pune proposal drafted mainly by Prof Bhide and discussed and supplemented by many in Pune and from across India.)

5. Let me now list no. of minor corrections:

5.1 p. 4 line 9; change 'an' to 'each'

5.2 Page 11: para 1 : after "This will produce quality manpower" Please delete "The graduates...in India" and substitute: "The graduates will be able to seek jobs available in Space, Nuclear and Defence Agencies, educational establishments, research institutes, R&D laboratories,industries and many endavours of the society at large in India.

5.3: p. 15: line 4: change 20% to 30%. and line 80% to 70%.

5.4 p. 15 line 14; add industry after Universities. You may also add Department of Science and Technology (DST) and Department of Biotechnology (DBT0 after (DRDO).
(Reason they have many Research labs).

5.5: p.17 line 4 from bottom: delete undergraduate and change 'in' 'to'
Similarly line 8 on p.21 change 'undergraduate' to 'educational'
(five year Integrated programme can not be called as an undergraduate programme).

5.6: p. 20 : change 'Speakers for' to 'Some of the participants of the'
p.20 two lines from bottom: change apex to 'Advisory" and
and change the sentence to Advisory Committee of IISER will discuss nd give comments on the programmes and activities of IIser and also monitor....
Also change 'apex' to 'Advisory' on line 1 of p.21.

(REASON: PROPOSED APEX BODY CANNOT BE ABOVE THE SENATE AND THE BOARD OF IISER).

5.7. Lines 12 to 15: Delete " If it is decided to develop a four year programme ..... shall be 1000"

(Reason: The meeting held at NCL by the Pune group did not recommend a 4 year programme.)

5.8 Change 120 students to 50 and 1000 to 750 as discussed in Para 1.

5.9. p.22 add line 5; 'teaching and' before 'running...'.

5.10: p.22: IMPORTANT CHANGE REQUESTED: Add before 'People of Indian Origin ...." : 'Scientists from abroad' and people of Indian origin...

5.11: p.23: line 7 change 'a couple' to 'few'
(Reason: to me couple means only 2 days or so. What about somebody for 5 days giving some lecture or working with students or a faculty on a research problem or somebody from abroad for a short visit.).

P. 23 Para 2: line 2 of the para add 'teaching as well research laboratories"
p. 23 line 2 from bottom delete all :
p. 23 last line: change eight to ten.

5.12: p.24 : to correct as discussed in Para 3 of this email.

5.13: p.25 para 3 add the before Government.
IMPORTANT: p. 25 para 4 CHANGE five to seven

5.14 p. 26 : as discussed in Para 4 of this email.

5.15 p. 29: para 4 of Goals: last line change M.Sc. students of IISER and from

other Universities

5.16 p. 30 para "7": To modify as follows:

To help create career oppurtunity for students of IISER with Masters and Ph.D. degrees in various aspects of basic sciences as well related disciplines in engineering sciences such as fluid mechanics, material science, electro-magnetics, electronics, engineering design and technical arts.

5.17. p. 30 add after front-line and focussed

p. 30 in MODALITIES change one hundred to about fifty students in the first year...

p.31. para 11 Change 'Most' to 'Meritorious and deserving"

Regards

Govind

92/3

National Centre for Radio Astrophysics
TATA INSTITUTE OF FUNDAMENTAL RESEARCH

TIFR, Post Bag 3, Ganeshkhind, Pune University Campus, Pune 411007, INDIA
Tel: (Off) +91 20 2569 7107; (Res:) +91 20 25899030; Fax: +91 20 2569 2149,
Email: swarup@ncra.tifr.res.in; URL: http://www.ncra.tifr.res.in

NCRA • TIFR

Professor Govind Swarup, F.R.S.
Formerly Director, NCRA/GMRT

Urgent

Dated: 3rd February, 2006.

Dr S. Sivaram
Director
National Chemical Laboratory
Dr. Homi Bhabha Road
Pune 411008

Subject: Indian Institute of Science Education and Research. Pune (IISER-P)

Dear Dr. Sivaram

Please refer to your letter of January 16, 2006 with enclosures regarding MOA, Rules and Regulations and Prospectus of IISER-P.

Prof. Bhide has revised the proposed MOA making some grammatical corrections and several improvements which he has discussed with me clause by clause. I enclose a copy for your kind consideration and look forward to discuss it with you at your earliest convenience. We will also discuss several clauses in the Rules and Regulations and in the Prospectus which need correction.

Yours Sincerely

Govind Swarup

(Govind Swarup)

c.c. Prof. V. G. Bhide

Doc. 93 : 1 page

93/1