

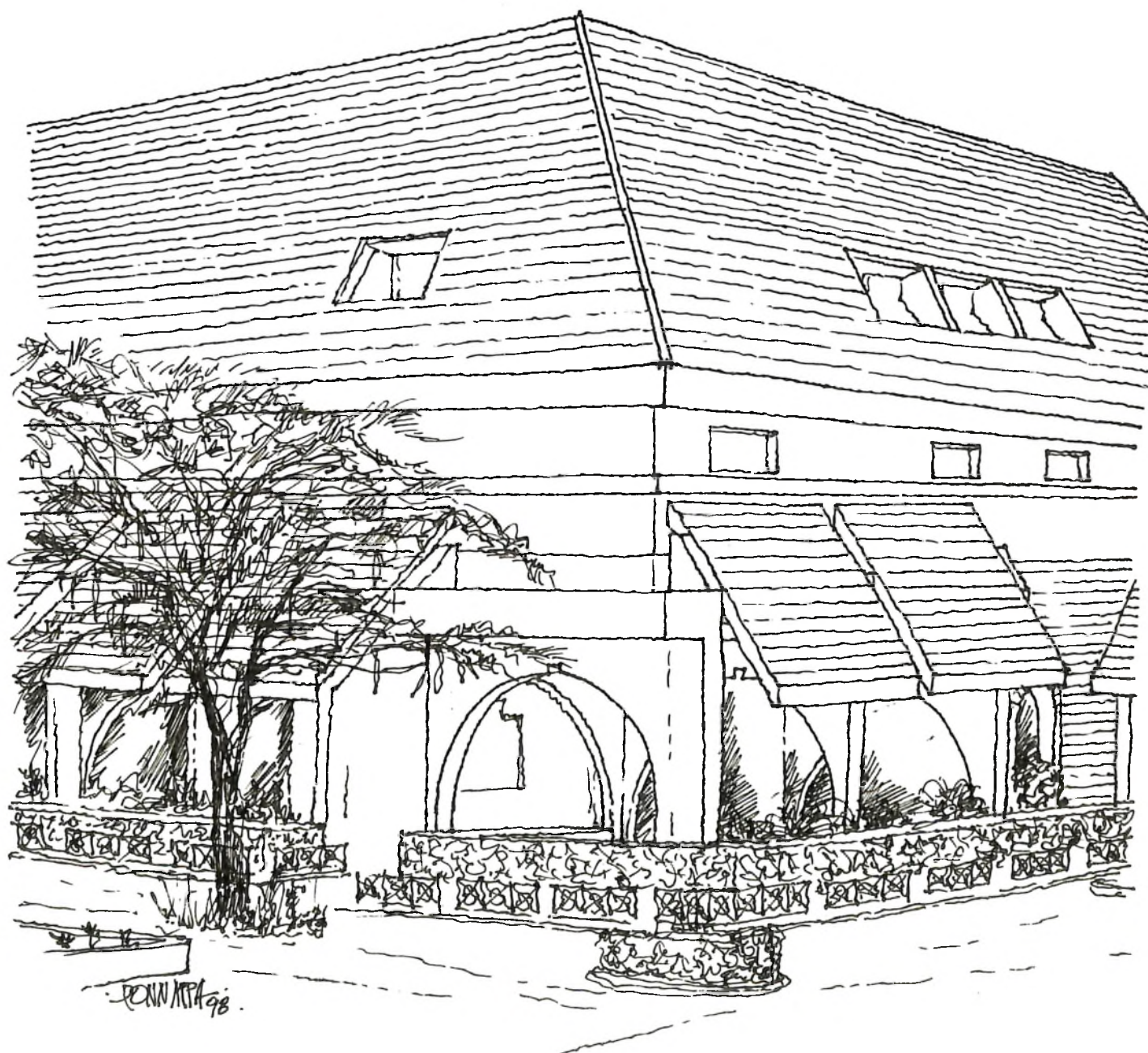


NIAS NEWS

A NEWSLETTER OF THE NATIONAL INSTITUTE OF ADVANCED STUDIES
BANGALORE

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July 1999



Editors' Note

This is the third issue of *NIAS NEWS*, a window into the National Institute of Advanced Studies, in its new avatar as a quarterly journal – and still evolving! We would once again like to apologise about the delay in publishing this issue; it has been entirely due to circumstances beyond our control. Our objective is to bring you newsworthy information that will allow you to be aware of the research being conducted in our Institute as well as the many other activities that we organise every month. As always, we welcome you to write to us if you would like to participate in any of the upcoming events being organised at the Institute.

Anindya Sinha, Hamsa Kalyani and A Devaraju, Editors
July 1999

A GRANT FOR THE LIBRARY

We are happy and grateful to receive a substantial grant for our library from Mr Kanwal K. Grover, Chairman, Hindustan Export and Import Corporation Pvt. Ltd. Over the years, although research activities of the Institute have grown many-fold, we have not been able to enhance our collection adequately. With this financial support from Mr Grover, we propose to strengthen our library collection across all disciplines of active research at the Institute, as well as acquire modern computer-based technology which would help in providing a variety of information services, resource sharing and networking facilities with other libraries. As a step forward in networking, we have launched our own website that can be accessed at

HYPERLINK <http://www.iisc.ernet.in/nias/>

The Institute's in-house publishing unit proposes to actively continue publishing reports, selected lectures and special publications with the help of this grant.



Mr Kanwal Kishore Grover was born in Lahore in 1925. He graduated with English Honours in 1943 from the Government College having won the All India Juniors Title in Tennis early in the same year.

After an apprenticeship in a tent factory in Pune as well as a woollen mill in Bombay, Mr. Grover started Hindustan Export & Import Corporation Pvt. Ltd. in November 1945. The company now has six offices all over India, and nearly 100 employees including highly qualified and trained electronic and mechanical engineers. The company acts as a distributor in India for high-tech products like machine tools, technologies and hardware for space and defence industries.

After ten years of experiments he founded Grover Vineyards Ltd. and produced the first 5000 bottles of wine in '92. This project with a vineyard of 100 acres, has a grape plantation which is specially suited for wine production. While the Veuve Clicquot of France has a minority interest the world-famous Michael Rolland of Bordeaux acts as an adviser to the company.

Hamsa Kalyani

From the Director's Desk

The major event at NIAS in the last quarter was the Dialogue on Nuclear Policy Issues that took place between the Committee on International Security and Arms Control (CISAC) of the US National Academy of Sciences and a group of Indian scientists and analysts assembled by NIAS. The meeting took place during 19-21 May 1999 in a frank and cordial atmosphere. Although the views of team members on either side were not identical among themselves, there emerged a fair picture of the overall concerns on the Indian and US sides. I believe that the Dialogue represents a distinct step forward in the understanding of the scientist/analyst communities in each country of the other's position. The Dialogue has provided us a solid foundation for future discussions, when I expect more specific issues can be considered, now that the preliminaries are out of the way.

As part of the programme during the visit of the CISAC delegation, an Associates Programme was organized on 19 May. Professor John P Holdren, Chairman of the US Committee, Prof Kumar N Patel, Vice Chancellor of Research at the University of California at Los Angeles, and General Lee Butler, who headed the United States strategic nuclear forces for several years, spoke at the meeting about American perceptions. Dr Raja Ramanna, Ambassador Arundhati Ghose and General Satish Nambiar spoke similarly from the Indian side. General Butler spoke feelingly about the need for ensuring that nuclear weapons could never be used anywhere in the world by any country. A long discussion followed the presentations, with particular emphasis on the possibility of promoting collective security.

The spirit of cordiality, in which the meeting was held, was enhanced when the participants could all share another generous gift by Mr Kanwal Grover (who owns a vineyard near Bangalore; I mentioned his gift to our Library last time). In any case the two sides agreed to meet again next year; although the time and place are to be decided yet, I have invited them to meet again in India.

In our series of round table meetings we had a very fruitful discussion on 18 June on energy from biomass. A separate report on this meeting appears elsewhere in this Newsletter.

The LAN at NIAS is now fully operational, and we have to thank the Rockefeller Foundation for making it possible for us to enhance our network capabilities substantially.

R Narasimha

Research Programmes

The principal areas of research that faculty members of the Institute are currently involved in include consciousness studies, environmental toxicology, epigraphy, gender studies, international and strategic studies, philosophy of science, primate cognition, sociology and social anthropology, and theory of numbers.

The Gender Studies Unit is conducting a project, entitled "Literacy completion campaign: An evaluation" with the support of the Government of Karnataka. The research officers and computation assistants connected with this project include Ms G Saraswathi, Ms N Sudhamani, Mr Shaji Verghese, Mr N R Rajendra, Mr Venugopal and Mr Sunder Raj Mani.

Important Events

Complementing its research programmes, NIAS organises a variety of seminars, workshops, and academic courses each year. Some of the important events that was organised during the period from April to June 1999 included:

WORKSHOP ON "DIGITISATION AND COMPUTERISATION OF MANUSCRIPTS"

5 – 7 April, 1999

This workshop, organised by Dr Sangeetha Menon and Prof George Williams, provided tutorials and hands-on training on new digital copying equipment's, graphic manipulation, database management, and techniques for CD-ROM publication on the internet. The workshop, inaugurated by Prof R Narasimha, Director, and reviewed by Prof B V Sreekantan, included participants from Indira Gandhi National Centre for Arts, New Delhi; Karnatak University, Dharwad; Academy of Sanskrit Research, Melkote; Oriental Research Institute and Manuscripts Library, Mysore; and Keladi Museum, Sagar. During the valedictory session, Dr N R Narayana Murthy (Chairman, Infosys) and Dr S R Rao (Chairman, Keladi Museum and Historical Research Bureau) commented on the prospects of digitisation of manuscripts and the directions that new digital technologies can lead to. A CD-ROM on selected manuscripts, developed by Dr Sangeetha Menon and Prof George Williams as a part of a pilot project supported by Infosys, was presented to Dr Murthy by Prof R Narasimha.

Sangeetha Menon

CISAC – NIAS DIALOGUE ON "INTERNATIONAL SECURITY"

19 – 21 May, 1999

In a dialogue between Indian experts and members of the Committee on International Security and Arms Control (CISAC) of the U.S. National Academy of Sciences, hosted by NIAS, the following areas were covered:

- (1) Recent developments and directions in US and Indian nuclear weapons policies;

- (2) Towards nuclear zero: US and Indian perceptions and perspectives about complete nuclear disarmament;
- (3) Comprehensive accounting arrangements for weapons and materials;
- (4) Minimising the chances of accidental, inadvertent and unauthorised uses of nuclear weapons.

Finally, a set of recommendations to be presented to the government for seeking support for biomass energy generation was formulated by consensus. A NIAS report of the workshop, containing greater details of the proceedings, will be issued shortly.

S Rajagopal

The Indian delegation was led by Prof R Narasimha, Director, NIAS, and the CISAC by Prof John Holdren. Dr Raja Ramanna inaugurated the meeting with an overview of the Indian atomic energy programme. The discussions which followed over two days were transparent, lively and rich in content. An assessment of the situation that prevails and its near- and long-term effects, especially in the light of the developments that followed the nuclear tests conducted by India in May, 1998, were discussed in the context of the themes identified and mentioned above. The meeting concluded with a decision to continue the dialogue process in the coming years as well.

S Rajagopal

WORKSHOP ON “ENERGY FOR RURAL DEVELOPMENT”

18 June, 1999

This one-day workshop, organised at NIAS, was well attended with the participation of scientists, industrialists, technologists, and funding agencies. Discussions that followed the presentations revealed that the large potential of energy from biomass is not being exploited mainly due to funding constraints despite the availability of indigenously developed technology and equipment. The presentations also dealt with the present state-of-the-art of technologies available both nationally and globally. The advantages and disadvantages of operating small generating units (100 to 500 Kkws) as stand-alone, in mini-grid mode and by connecting to existing grids, were discussed. Field experiences of co-generation units operating in sugar plants were also discussed.

Visits

Dr N C Nath, Director, Gandhi Peace Centre visited the Gender Studies Unit on 4 May, 1999, to discuss the possibility of conducting a gender audit of the centre and its affiliates during this year.

Dr J B Singh, Faculty, School of International Service, Washington DC, USA, also visited the Gender Studies Unit on 26 May, 1999, to discuss issues relating to women’s political participation and the role of the civil society in this endeavour.

Mr H Bhaskar, IAS, Director, Urban Development, Government of Karnataka, visited the Gender Studies Unit on 2 June, 1999, to discuss the activities of the Unit and the possibility of developing collaborative projects.

Fellowships/Visitorships

Dr Sundar Sarukkai will be a Fellow of the Indian Institute of Advanced Study, Shimla, for a period of one year, beginning 1 July, 1999.

Meetings Attended

Dr Shantha Mohan presented the baseline report on 'Political participation of women in India' at the Second Regional Meeting for facilitating the Fulfillment of State Obligation towards Women's Equality, organised by the International Women's Rights Action Watch – Asia Pacific, in Kalutara, Sri Lanka, during 18 – 22 May, 1999.

Dr Shantha Mohan delivered a talk on 'Conducive environment for women at the workplace' at the All-India Conference on the Supreme Court Judgement on the Implementation of the Guidelines to Prevent Sexual Harassment at the Workplace, organised by the National Institute of Public Administration, Bangalore, on 1 June, 1999.

Prof K Ramachandra was invited to deliver the keynote address at the 14th Annual Conference of the Ramanujan Mathematical Society, held at the Indian Institute of Science, Bangalore, during 7 – 9 June, 1999. The title of the keynote lecture was "On the future of Riemann hypothesis (RH)".

Ms Asha Ramesh contributed to designing a gender-sensitisation training module for DANIDA, a bilateral project of the Danish Government and the Government of Karnataka, which aims to address the problems of drinking water and sanitation.

Ms Asha Ramesh participated in a workshop organised by the Mahila Samakhya on 28 May, 1999, for its district programme officers and members of the Appraisal Team to deliberate on the parameters and methodology to be used for appraising the Mahila Samakhya Programme in Karnataka.

Prof M N Srinivas participated in a conference on "Semi-arid areas and management of sustainable development in rural Gujarat and Karnataka", organized by the Swiss Development Corporation and Institute for Social and Economic Change, Bangalore, during 25 – 28 March, 1999.

Publications

NIAS PUBLICATIONS

Copies of the below-mentioned NIAS publications can be purchased from the Institute. Please contact the Controller, NIAS, for more details.

I. NIAS REPORTS

R3-99 Science, technology and society:
A tale about rocket development
during 1750-1850
Roddam Narasimha

R4-99 A Biomass option for enhancing
energy security
H S Mukunda
*Aerospace Engineering, Indian Institute of
Science, Bangalore*

R5-99 Agrarian distress in Bidar
A R Vasavi

II. NIAS LECTURES

L2-99 Literatures in India
U R Ananthamurthy
Bangalore

- L3-99 Political leaders of independent India
H Y Sharada Prasad
Vice-President, Indian Council for Cultural
Relations, New Delhi

III. NIAS SPECIAL PUBLICATIONS

- 1-99 The Bangalore Communique – adopted at the International Symposium on Science in Society: A New Social Contract, 27 – 29 January 1999
- 2-99 International Symposium on Science in Society: A New Social Contract, 27 – 29 January 1999 – A report
- 3-99 The Bangalore Declaration on Information Technology for Developing Countries in the Global Village, November 4, 1998
- 4-99 Qualitative methods in mental health research *R L Kapur* (ed.)

This volume contains papers presented by some eminent psychiatrists, sociologists and anthropologists from India and abroad at a workshop organised by NIAS with the support of International Development Research Centre, Canada, in April 1995. Qualitative research techniques have long been used by social and cultural anthropologists to analyse information gathered during fieldwork. More recently, psychiatrists, psychologists, psychiatric social workers and others carrying out mental health research have felt the need of using such techniques, for example, in studying phenomenology of mental disorder, relationship of social and cultural factors to aetiology of psychiatric illnesses, and evaluation of psychotherapeutic intervention, where the data does not easily respond to numerical and statistical techniques. Unfortunately, not many in the field of mental health research are familiar with these techniques. This volume has been brought out since it was felt that what transpired during the workshop would be of value to other mental health researchers across the world.

PAPERS

- Anasuya Devi, H K 1999. Role of segmentation technique for sample epigraphy text: A case study. *Journal of the Epigraphical Society of India* **25**: 40-50.
- Cowsik, R and Sreekantan, B V 1999. A bound on violations of Lorentz invariance. *Physics Letters B* **449**: 219-222.
- Kumar, A. 1999. Peace through triangulation. *Himal South Asian* **12**: 49.
- Menon, S and Williams, G 1999. Novel, cost-effective method of archiving manuscripts. *Current Science* **76**: 1299-1301.
- Menon, S and Williams, G 1999. A CD-ROM of selections from various manuscripts and description of the new digital technology developed at NIAS for the preservation of paper and palm leaf manuscripts.
- Narasimhan, M G 1999. Model organisms in biology: Scientific and other uses. *Journal of Biosciences* **24**: 141-142.

ARTICLES AND INTERVIEWS

- Antony, P To modernise or not. Book review of “Indian modernity: Contradictions, paradoxes and possibilities” by Avijit Pathak, Gyan Publishing, New Delhi, 1998. *Deccan Herald*, 7 February, 1999.
- Antony, P Language frenzy. Book review of “Passions of the tongue” by Sumanthi Ramaswamy, Munshiram Moharlal, New Delhi, 1998. *Deccan Herald*, 16 May, 1999.

Antony, P Old Spaces, new rules. Book review of "Negotiation and social space: A gender analysis of changing kin and security networks in South Asia and sub-Saharan Africa" edited by Carla Risseuw and Kamala Ganesh, Sage Publications, New Delhi, 1999. *Deccan Herald*, 11 July, 1999.

Antony, P Book review of "Negotiating reproductive rights: Women's perspectives across countries and cultures" edited by Rosalind P Petchesky and Karen Judd, Zed Books, 1998. *Health Watch Update* 6, 1999.

Devaraju, A A doctor with two right hand men. *Deccan Herald*, 16 April, 1999.

Devaraju, A A visit to Kotilingeswara. *March of Karnataka*, April, 1999.

Kumar, A Comments on the conflict in Kargil. *Southern Asia Internet Forum Dialogue* (www.stimson.org/cbm/saif/kargil.htm), 11 June, 1999.

Kumar, A Analysis on Kargil crisis. *Institute of Peace and Conflict Studies website* (www.ipcs.org/issues/articles-i.p.-arvind.htm)

Kumar, A Lessons of the Kargil crisis. *Deccan Herald*, 19 June, 1999.

Srinivas, M N Conversion and the curse of caste. *Times of India*, 29 April, 1999.

Associates' Programme

The Institute maintains a strong outreach with its Associates Programme. The Associates of the Institute include prominent personalities from widely different backgrounds in the media, arts, policy-making and academia. Associates are invited to a monthly evening lecture series and other important events, and constitute a strong base of ongoing outside support and interactions.

The Associates Programmes during the period from January to March, 1999, included the following events:

- | | |
|----------|--|
| 16 April | A tribute to A K Ramanujan: An exhibition of drawings by S G VASUDEV and a reading of his poetry by ARUNDHATI RAO |
| 3 May | Physics of the time phenomenon: Foundations of physics
G SURYAN
Indian Institute of Science, Bangalore |
| 19 May | Panel discussion on nuclear arms and security
JOHN HOLDREN, KUMAR PATEL, LEE BUTLER, RAJA RAMANNA, ARUNDHATI GHOSE, SATISH NAMBIAR
Members of CISAC – NIAS
Dialogue on "International Security" |
| 25 May | Interaction of solitary waves
J L BONA
Department of Mathematics,
University of Texas, USA |
| 11 June | Institution of devadasis in historical perspective
S SETTAR
Chairman, Indian Council of Historical Research, New Delhi |

Wednesday Discussion Meetings

The members of the Institute meet every Wednesday morning for informal academic discussions after a talk delivered by a member of the faculty. Wednesday meetings also serve as a forum for invited guest speakers to deliver a lecture on a subject of their choice. The discussions then continue over the high tea that follows these talks!

The Wednesday Discussion Meetings during the earlier part of this year have included:

- | | |
|----------|---|
| 14 April | Relief from distress: A comparison of eastern and western psychological traditions
R L KAPUR |
| 21 April | Gender and irrigation water resource distribution and management
SHANTHA MOHAN |
| 5 May | Women and the cycle of violence
ASHA RAMESH |
| 12 May | For a livelihood: A perspective on migration to plantations
PIUSH ANTHONY |
| 26 May | Studies in history and philosophy of biology
M G NARASIMHAN |
| 2 June | Fissile material stocks: Characteristics, measures and policy options
ARVIND KUMAR |
| 16 June | Science and translation
SUNDAR SARUKKAI |

- | | |
|---------|---|
| 23 June | The selfish meme and the selfless <i>atma</i>
ANINDYA SINHA, SANGEETHA MENON, B V SREEKANTAN |
|---------|---|

Guest speakers at the Institute during this period were:

- | | |
|---------|--|
| 7 April | How did the axiomatic method arrive?
S D AGASHE
Indian Institute of Technology, Mumbai |
| 9 April | The cognitive turn in philosophy of science
AMITABHA GUPTA
Indian Institute of Technology, Mumbai |
| 9 June | Human impacts on wildlife communities in deciduous forests of Karnataka
M D MADHUSUDAN
Centre for Ecological Research and Conservation, Mysore |

Upcoming Events

The International and Strategic Studies Unit is organising a two-day meeting during 29-31 July, 1999, on “**Women in International Relations: Exploring South Asian Initiatives**”. This is a follow-on meeting to the International Workshop on “South Asian Women in International Relations: Building Cooperative Networks” which NIAS hosted during 30-31 July 1998. NIAS would invite experts from Bangladesh, Nepal, Pakistan and Sri Lanka to take further initiatives over those begun in 1998 to build regional cooperation.

The International and Strategic Studies Unit is planning another two-day meeting between U.S. and Indian experts on

Energy as an ongoing activity of **“Indo-U.S. programme on Electric Power Technology Assessment”**. Four areas namely clean coal, biomass, transmission and distribution and gas and oil will be discussed during the meeting.

CONTRIBUTION FOR A CAUSE

The Director and the staff of NIAS have contributed an amount of Rs.35,000/- to the Army Central Welfare Fund for the welfare of families of soldiers who have laid down their lives and also those who have been rendered disabled in the Kargil operation.

An Appeal for Funds

Building and sustaining the intellectual and social foundations of a transforming civilization

About NIAS

India has several fine institutions, in the natural sciences, in engineering and technology, and in the social sciences. But these institutions harbour different cultures, and, indeed, are often worlds unto themselves. And there are too few bridges between and among them. The most interesting and challenging problems of the coming century probably lie in the interfaces between these cultures and disciplines – interfaces that are studied far too little in our country. It is in these no-man’s lands that I believe the future of NIAS lies – in subjects that do not belong to the tidy little pigeon-holes that the current knowledge system of the world has created – artificially, and for technical or bureaucratic convenience, not because that is the way the world operates. How to build these bridges,

how to bring different intellectual and social communities together, and how to look at the future of our nation and the world with the greatest possible intellectual integrity as well as public and social confidence – it is the pursuit of these aims that NIAS is taking up as its mission.

If we have to achieve these goals it is necessary for us to bring together the best in the natural and social sciences. The late JRD Tata, who conceived of this institution, saw the great need in India to form a new kind of leader – he envisioned an institution that could harness creativity and commitment, mathematics and management. With my distinguished colleagues on the faculty of NIAS, and the eminent persons we count among our Associates, I am hopeful that we can carve a unique niche for ourselves in the public and intellectual life of this country and the world, moving in the direction that our founders so clearly saw as essential for the future health of our nation.

The Appeal

The pursuit of our goals demands a measure of autonomy. We need financial support from diverse sources to ensure and sustain that autonomy. The early generosity of the House of Tatas and the Government of Karnataka has given us some splendid facilities. We now need to build on this foundation, diversify our sources of income and carry out programmes that are sensitive, at one and the same time, to public and national needs as well as to the demands of uncompromising intellectual rigour.

We solicit your contributions to help us to realise our goals. For details on how you can exactly contribute, please do not hesitate to contact me.

R Narasimha
Director, NIAS, and
Chairman, NIAS Endowment Committee

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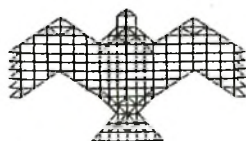
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The National Institute of Advanced Studies (NIAS) was conceived and initiated by the late Mr J R D Tata, who sought to create an institution which would conduct advanced research in multidisciplinary areas, and also serve as a forum to bring together administrators and managers from industry and government, leaders in public affairs, eminent individuals in different walks of life, and the academic community in the natural and social sciences. The intention has thus been to nurture a broad base of scholars, managers and leaders who may contribute to tackling the complex problems facing contemporary India in a more informed and effective manner.

The philosophy underlying NIAS is given shape by its research teams, which are drawn from a variety of disciplines in the natural and social sciences. The Institute is unique in its integrated approach to the study of intersections between science and technology and social issues.



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