

NATIONAL INSTITUTE OF ADVANCED STUDIES


Bangalore, India



Cutting Edge Research

Multidisciplinary Studies

Leadership Excellence



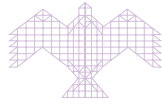
National Institute of Advanced Studies (NIAS) was conceived and founded in 1988 by the late Sri JRD Tata, who sought to create an institution to conduct advanced multidisciplinary research. Housed in a picturesque green campus in Bangalore the Institute serves as a forum to bring together individuals from diverse intellectual backgrounds. They include administrators and managers from industry and government, leaders in public affairs, eminent individuals in different walks of life, and the academicians in the natural and life sciences, humanities, and social sciences.

The objective is to nurture a broad base of scholars, managers and leaders who would respond to the complex challenges that face contemporary India and global society, with insight, sensitivity, confidence and dedication.

The Mission

To integrate the findings of scholarship in the natural and social sciences with technology and the arts through multi-disciplinary research on the complex issues that face Indian and global society.

To assist in the creation of new leadership with broad horizons in all sectors of society by disseminating the conclusions of such research through appropriate publications and courses as well as dialogues with leaders and the public.



Management

NIAS was registered as a Society under the Karnataka Societies Registration Act, 1960 on 20th June 1988. The Council of Management, the Academic Council and the Holding Trustees are the three authorities responsible for overall administration of the Institute. Sri JRD Tata was the first Chairman of the Council of Management. Dr Raja Ramanna was the Founder Director until his retirement in July 1997, and followed by Prof R Narasimha until 2004. Dr K Kasturirangan was the Director during 2004-2009.

Dr MS Swaminathan currently chairs the Council of Management. Prof VS Ramamurthy is the Director of the Institute.

Members of NIAS Council of Management

Chairman

Dr MS Swaminathan

Members

Dr JJ Irani

Dr VS Ramamurthy

Dr T Ramasami

Sri LV Nagarajan

Dr Devaki Jain

Sri Shantanu Consul

Prof P Balaram

Sri Xerxes Desai

Sri NR Narayana Murthy

Dr Kiran Mazumdar Shaw

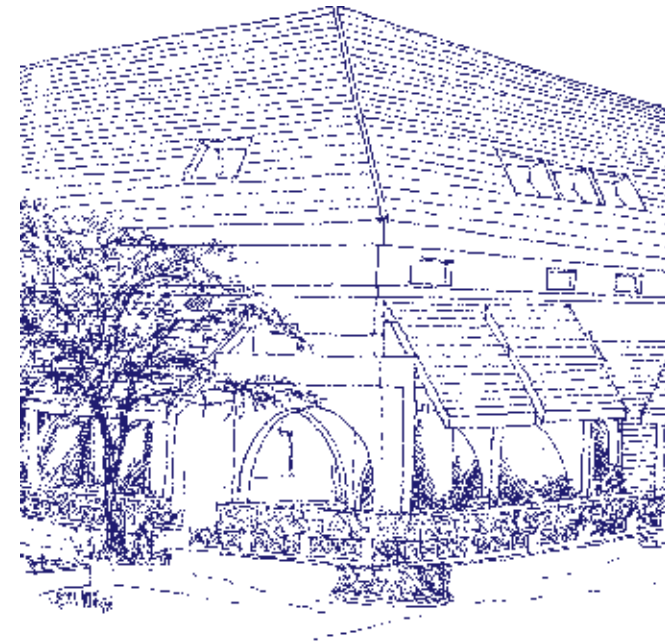
Dr Arcot Ramachandran

Prof Andre Beteille

Sri AN Singh

Sri AS Srikanth

The members of the Council of Management are also members of the NIAS Society, with Dr BV Sreekantan as an additional member. Prof Narendar Pani is the Secretary to both the Council of Management and the NIAS Society.

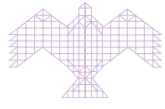


Research

The philosophy underlying NIAS is given shape by its research broadly in the areas of Humanities, Natural Sciences & Engineering, Social Sciences, and International Strategic & Security Studies. The Institute is unique in its integrated approach to the study of the intersections between science and technology, social issues, humanities and leadership.

The research areas covered at NIAS are broadly in the field of social and political issues, education, gender issues, philosophy, psychology, science and society, environment, agriculture, materials heritage, art, archaeometallurgy, science atlas, nanotechnology, history, social anthropology, interdisciplinary economics, strategic, security and foreign policy issues, consciousness studies, primate behavioural ecology, cognition, genetics, conservation and mathematical modelling. Research studies conducted by the faculty of the Institute are disseminated through publications in peer-reviewed journals, edited volumes, books, Institute's reports, and lectures & technical seminars.





History

Over the years, NIAS has moved towards fulfilling the dreams of its founder Sri JRD Tata, its founder Director Dr Raja Ramanna and its subsequent Directors Dr Roddam Narasimha and Dr K Kasturirangan. As a multidisciplinary Institute, NIAS combines scientific and humanistic perspectives on topics of national and international importance. Activities of NIAS include research, analysis, publications and teaching. Following the ideas of its founder, NIAS has also been an educational centre for future leaders of India through its courses and educational programmes. Over the years, NIAS has created a unique ambience wherein researchers, scholars, speakers and visitors from a variety of disciplines interact in a meaningful manner. The PhD programme that was initiated in 2004 has added to the dynamism with exploratory interest in many interdisciplinary areas of research.

The Institute has ample facilities for conferences, lectures and theatrical programmes. The JRD Tata Auditorium and the Lecture Halls facilitate an ideal atmosphere for long hours of deliberation and discussion. Situated on five acres of land within the verdant campus of the Indian Institute of Science, the buildings of NIAS have a strikingly distinctive architecture with elegant lines and arched corridors. The fully furnished guest rooms make the visitors' and course participants' stay a pleasant one.

NIAS has an active programme of public lectures, regional, national and international conferences, symposia and seminars organized independently or jointly with other institutions, that focus on topical areas of research and public concern.



Sri JRD Tata planted a banyan sapling in the campus on 19th March 1993.



The banyan tree today...

NIAS

Timeline

1987



Dr Raja Ramanna takes charge as Founder Director.

1988

NIAS registered as a Society under the Karnataka Societies Registration Act (1960) on 20th June 1988.

Sri JRD Tata chairs the first meeting of the NIAS Council of Management.

First Meeting of the NIAS Council of Management on 8th August. Members present include Sri JRD Tata (Chairman), Sri JJ Bhabha, Dr Raja Ramanna, Dr CNR Rao, Sri TR Satish Chandran, Sri Ashok Ganguly, Sri Keshub Mahindra and Dr MGK Meron.



Dr RL Kapur joins on 1st October as Professor and starts the Unit on Health and Human Behaviour.

1989

First NIAS Course for Senior Executives (from 16th January to 18th February). Speakers include Prof Andre Beteille, Prof Romila Thapar, Prof N Mukunda. Twenty-eight senior executives attend. They include Sri ST Bhaskaran (Dept of Post, Karnataka Circle), Sri KU Limaye (DRDO), Sri B Muthuraman (The Tata Iron and Steel Co Ltd.), and Sri M Kamal Naidu (National Zoological Park).



1990

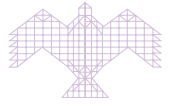


Prof CNR Rao (then Director, Indian Institute of Science) consents to be the Hon. Director (pro tempore) during the period when Dr Ramanna is away in Delhi as Minister of State.

1991



Dr CV Sundaram joins as the first Homi Bhabha Chair Professor on 18th November.



N I A S *Timeline*

1992

Sri JRD Tata lays foundation stone of NIAS on 12th March.



Prof MN Srinivas joins as the first JRD Tata Chair Professor on 2nd February.

Dr BV Sreekantan joins as the first S Radhakrishnan Chair Professor on 6th August.

1993

Sri JRD Tata plants a banyan sapling in the campus on 19th March.



Plan for JRD Tata Auditorium unveiled.

First NIAS Course for UGC Teachers from 4th to 30th October.

1997



Prof Roddam Narasimha takes over as Director on 1st August.

Prime Minister HD Deve Gowda inaugurates NIAS JRD Tata Memorial Auditorium on 23rd March.



1998

President KR Narayanan visits NIAS on the occasion of the birth centenary celebrations of Prof KS Krishnan on 28th July.

2004



Dr K Kasturirangan takes over as Director on 31st March.

Reorganisation of Units into three Schools: Humanities, Social Sciences, and Natural Sciences & Engineering.

Profs BV Sreekantan, PG Vaidya and Dilip Ahuja take charge as Deans of School of Humanities, School of Natural Sciences & Engineering and School of Social Sciences, respectively. S Rajgopal takes over as Dean, Administration.

Commencement of NIAS Doctoral Programme and induction of PhD students.

2005

President APJ Abdul Kalam delivers the 5th JRD Tata Birth Centenary Lecture.



Dr JJ Irani lays Foundation Stone of the Centenary Faculty Block on 2nd July.

2006



Faculty moved to the Centenary Faculty Block on 2nd October.

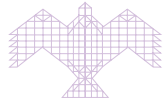
2008

NIAS celebrates its Vicennial Anniversary.

2009



Dr VS Ramamurthy takes over as Director of NIAS on 02 September 2009



S C H O O L S



School of Humanities

School of Humanities is engaged in research in philosophy, literature and the fine arts. Faculty of this school work on the philosophical foundations of sciences including mathematics; scientific and philosophical studies of consciousness; history and philosophy of science; analysis of ancient metals; social implications of nanotechnology; and translations of Kannada literary classics into English. The School of Humanities organises many national and international conferences, as well as supports visitors to the School for varying durations.

School of Natural Sciences and Engineering

This school covers research in the fields of engineering, mathematics, agriculture, ecology and conservation biology. Current research interests of the faculty members include various aspects of signal processing; number theory; artificial intelligence; soft computing; language engineering; mathematical modelling of complex chaotic systems; studies on agro-ecology; natural resource conservation, particularly soil and water conservation; pesticide stewardship; conservation of wildlife; primate behaviour and cognition.

School of Social Sciences

With an eclectic mix of disciplines, School of Social Sciences is engaged in activities that include research, teaching, outreach, advocacy and consultancy. The faculty are drawn from sociology and social anthropology, gender studies, educational studies, economics, and energy studies, and have conducted several research-cum-outreach projects in the fields of education, gender, governance and development. Current areas of interest are in forging inter-disciplinary work to understand and address issues in the areas of water, energy, and education. The school also seeks to contribute to work on globalisation, organisations, development and economic sociology.

Director



V S Ramamurthy
Ph.D. (Bombay University, Mumbai)

vsramamurthy@nias.iisc.ernet.in

Prof Valangiman Subramaniam Ramamurthy is presently the Director of the Institute. Prof Ramamurthy is a well known Indian nuclear scientist with a broad range of contributions from basic research to science administration. Prof Ramamurthy started his career in Bhabha Atomic Research Centre, Mumbai in the year 1963. He has made important research contributions, both experimental and theoretical, in many areas of nuclear fission and heavy ion reaction mechanisms, statistical and thermodynamic properties of nuclei, physics of atomic and molecular clusters and low energy accelerator applications. During the period 1995-2006, Prof Ramamurthy was fully involved in science promotion in India as Secretary to the Government of India, Department of Science & Technology (DST), New Delhi. He was also the Chairman of the IAEA Standing Advisory Group on Nuclear Applications for nearly a decade. After retirement from government service, Prof Ramamurthy, in addition to continuing research in Nuclear Physics in the Inter-University Accelerator Centre, New Delhi has also been actively involved in human resource development in all aspects of nuclear research and applications. Prof Ramamurthy is also a Chairman, Recruitment and Assessment Board, Council of Scientific and Industrial Research and Member, National Security Advisory Board. In recognition of his services to the growth of Science and Technology in the country, Prof Ramamurthy was awarded one of the top civilian awards of the country, the Padma Bhushan, by the Government of India in 2005.



Sangeetha Menon
PhD (Thiruvananthapuram, Kerala)
Professor

prajnana@yahoo.com; smenon@nias.iisc.ernet.in

Dr Menon's graduate studies was in biology, while her post-graduation was in philosophy (with a gold medal). Her doctoral thesis was on 'The concept of consciousness in the Bhagavad Gita'. She is a recipient of the Swami Pranavanada Philosophy Trust of India National Award (1989) and the Young Philosopher National Award (2002). Her research areas cover consciousness and mind studies, and topical issues pertaining to Indian philosophy, Indian aesthetics and Indian psychology. She is also engaged in initiating and networking 'Science-Spirituality-Art' dialogues. She has lectured extensively in several research and academic institutions in India and other countries. She was a Visiting Professor (Spring 2007) at the Oxford Centre for Hindu Studies (Oxford University) and at the Nanzan Institute for Religion and Culture (Nagoya University, Japan) in Fall, 2007. Her website is www.samvada.com

joined NIAS on 8th January 1996

most significant research contribution Developed Indian transpersonal psychology, and initiated science-art-philosophy dialogues on consciousness particularly in the context of Indian aesthetics, dramaturgy and spiritual traditions.



Arindam Chakrabarti
PhD (Oxford)
Professor

arindam@nias.iisc.ernet.in

Professor Chakrabarti received his doctorate from Oxford University, England in 1982. From 1983 to 1988 he was a Lecturer in Philosophy at the University of Calcutta, India. Between 1988 and 1992 he held the Spalding Visiting Fellowship at Wolfson College, Oxford, a Fellowship at the Institute of Advanced Study at Edinburgh, Jacobsen Fellowship and tutorship at University College London and a Visiting Assistant Professorship at the University of Washington, Seattle. After being trained as an analytic philosopher of language at Oxford, Professor Chakrabarti has spent several years receiving traditional training in Indian logic (Navya Nyaya) and metaphysics which made him fluent in Sanskrit. Before coming to Hawaii in 1997, he was a Professor in the Department of Philosophy at the University of Delhi, India. Professor Chakrabarti has edited or authored four books and has published numerous articles and reviews.



Sharada Srinivasan
PhD (University College, London)
Associate Professor

sharasri@gmail.com; sharada@nias.iisc.ernet.in

Dr Sharada Srinivasan has research interests ranging from archaeological science, metallurgy and materials characterisations of ancient artifacts and the implications for history of arts and crafts to performing arts. She is an acclaimed Bharata Natyam dancer. She has a PhD in archaeometallurgy from University College, London; MA from SOAS, London and BTech in engineering physics from IIT, Mumbai. She is a Fellow of the Royal Asiatic Society, and her awards include the Indian Institute of Metals Certificate of Excellence (2007), Materials Research Society of India Medal (2006), Maiti Nagar Ethnoarchaeology Award (2005), Materials Research Society Graduate Student Award, USA, (1997), the Flinders Petrie Prize and Medal, London University (1989) and also the Homi Bhabha Fellowship (1996-8) and the Forbes Smithsonian Research Associateship (1999).

joined NIAS on 10th June 2001

most significant research contribution Explored the inter-relationships between art, metals and materials heritage, archaeology, aesthetics, science and technology, and performing arts.



Rajesh Kasturirangan
PhD (MIT, USA)
Associate Professor

rkasturi@nias.iisc.ernet.in

Dr Rajesh Kasturirangan's research interests are in cognitive science and philosophy of mind. His current work relates to applying a combination of philosophical argument, mathematical techniques and empirical observations to classical problems in cognitive science and the philosophy of mind such as the semantics of natural languages, the epistemology of beliefs and the structure of intentionality and consciousness.

joined NIAS on 1st May 2006

most significant research contribution Developed a computational theory of how language and concepts are grounded in the world.



MG Narasimhan
PhD (IISc, Bangalore)
Associate Professor

narasimhanmarehalli@yahoo.com; narasim@nias.iisc.ernet.in

Dr Narasimhan's research work covers different themes and topics in history and philosophy of science and within that framework, issues related to biology. He is particularly interested in problems associated with evolutionary theory and related aspects. Prior to this Dr Narasimhan worked as a Lecturer in English in the Department of Pre-university Education, Government of Karnataka. He is a recipient of the Martin Foster medal for the best thesis for the year 1994-95 from the Indian Institute of Science, Bangalore.

joined NIAS on 2nd January 1998

most significant research contribution Initiated and pioneered studies in areas of scientific controversy and history and philosophy of biology for the first time in this country.



BV Sreekantan
PhD (TIFR, Mumbai)
Visiting Professor

bvsreekantan@gmail.com

Dr Sreekantan is currently Visiting Professor at this Institute and also Chairman, Gandhi Centre of Science and Human Values of the Bharatiya Vidya Bhavan, Bangalore. He was Dr Radhakrishnan Visiting Professor in 1992. He was the Director of the Tata Institute of Fundamental Research during 1975-87 and the Indian National Science Academy Srinivasa Ramanujan Professor during 1987-92. He has specialised in cosmic rays, high-energy physics and high-energy astronomy and has published over 200 research papers. He has received a number of professional awards including the RD Birla Award of the Indian Physics Association and the Padma Bhushan. He has held a number of Visiting positions including in the US and Japan. After moving to NIAS, Prof Sreekantan shifted his interests from pure science to studies on scientific and philosophical studies on consciousness and exploration of commonalities and similarities in holistic approaches in modern science and ancient philosophies. Through two seminars organized by him at NIAS, the historical epistemological, mathematical, experimental and technological factors that laid the foundations of sciences and led to the growth of modern science over the last few decades were analyzed and these have been incorporated in a volume that is under publication by ICPR.

joined NIAS on 6th August 1992



S Settar
PhD (Karnatak, India), PhD (Cambridge, England)
Visiting Professor

settar@nias.iisc.ernet.in

Dr S Settar has been conducting research in the fields of Indian archaeology, art-history, history of religions and philosophy as well as classical literature during the last four decades. Works under his personal authorship comprise four volumes on history of art, two on religion and philosophy, one on human civilisation and four on historiography. He has been Professor of History and Archaeology (1970-96), Director of the Institute of Indian Art History (1978-96) at Karnatak University, Dharwad, and Chairman, Indian Council of Historical Research, New Delhi, (1996-1999).

joined NIAS on 5th August 2002

most significant research contribution Efforts to bridge the widening gap between linguistic and regional differences of community and culture.



S Ranganathan
PhD (Cambridge University, UK)
Homi Bhabha Visiting Professor

rangu2001@yahoo.com

After an outstanding academic record in Loyola College, Chennai and the Indian Institute of Science, Bangalore, Prof Ranganathan obtained his PhD from Cambridge University, UK in 1965. His academic career as an educator and researcher in metallurgy for the past four decades has been outstanding. His seminal research contributions have advanced our understanding of the structure of metals through 300 publications including books on Wootz steel and new geometries. He is currently Honorary and INAE Distinguished Professor at the Indian Institute of Science and Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore. His contributions have been recognised by fellowships to five academies and numerous awards. His interests at NIAS include materials heritage, an atlas of India in Science and Societal Impact of Nanotechnology.

joined NIAS on 2nd July 2004

most significant research contribution Pioneered the study on the societal implications of nanotechnology, and development of an atlas of Indian science.



Malavika Kapur
PhD (Bangalore University)
Visiting Professor

malavikakapur@yahoo.co.in

Dr. Malavika Kapur was the Professor and Head of the Department of Clinical Psychology at the National Institute of Mental Health and Neurosciences, Bangalore. She has a Ph.D. in Clinical Psychology from Bangalore University and has eight books and over 100 publications to her credit. She is a Fellow of the British Psychological Society, the Indian Association of Clinical Psychologists, the Indian Association of Child and Adolescent Mental Health and the National Academy of Psychology. She has been a consultant for organizations such as the WHO, UGC, NCERT, NIPCCD, ICMR and ICSSR. She has been twice awarded the scholar in residency at the Study and Conference centre, at Bellagio in Italy, by the Rockefeller Foundation. Her areas of interest are Developmental Psychology, Community Mental Health Programmes for Children and Adolescents in Urban and Rural Schools, and Development of Assessment Tools and Intervention Packages for Children and Adolescents in the Indian Context. Her main contribution is her work of developing integrated models of mental health service delivery for children and adolescents. Her work is embedded in the cultural context as revealed in her Study of Child Care in Ancient India based on Ayurveda. Her other interests are fiction writing and trekking in the foothills of the Himalayas.



Samir Karmakar
Research Associate

samirkrmkr@yahoo.co.in

Samir Karmakar has submitted his PhD thesis at IIT Kanpur on the temporal ordering of situations in linguistic discourse. Currently, he is working with Rajesh Kasturirangan on spatio-temporal perspective and perspectival shift in discourse. He is primarily interested about the language based spatial and temporal cognition.

joined NIAS on 1st October 2009

most significant research contribution An English translation of a Sanskrit manuscript on grammar of 8th century AD is published by International School of Dravidian Linguistics with a subvention from West Bengal Government.



Prabhakar G Vaidya
PhD (Southampton, UK)
Professor

pgvaidya@nias.iisc.ernet.in

Dr Prabhakar Vaidya is currently a Professor of mathematical modelling. He got his BE from University of Bombay and MSc (Engg) and PhD (Acoustics) from the Institute of Sound and Vibrations Research, University of Southampton. He has worked at Lockheed, Boeing and NASA and taught at Purdue and Washington State University for many years before returning to India. His research publications range from Sonic Booms to Pathogenesis. His work at NIAS involves applications of advanced mathematics to diverse problems. Recent papers with this theme are in the areas of chaotic synchronisation and cryptography, speaker identification, advanced image processing and cardio-physics.

joined NIAS on 8th July 1999

most significant research contribution Breaking of a method in cryptography based on chaotic synchronization, multiplexing of several chaotic signals, formulation of chaotons which simulate certain quantum behaviour, explanation of how R-R variability leads to synchronisation of cardiac cells.



PK Shetty
PhD (IARI, New Delhi)
Professor

pks@nias.iisc.ernet.in

Dr PK Shetty was earlier the Head of the Environmental Studies Unit and also served as Dean (Administration). His current interests are in biosecurity & agro-ecology, energy and sustainability, environmental stewardship, science and technology policy studies. He has worked with many government and non-governmental organizations in the areas of education, environment and society. He has co-edited two books and published several research papers, reports and articles. He was Vice-President, Society of Pesticide Science, India. He is a frequently invited speaker at various professional forums in India and abroad. Dr Shetty has received several prestigious awards including Karnataka State Rajyotsava Award (2007). He is also independent Director, Power Grid Corporation of India Limited (A Government of India Enterprise) and also Director of the Advanced Research Institute, Bangalore.

joined NIAS on 6th August 1992

most significant research contribution Studies on the societal significance in agriculture and environmental stewardship particularly ecological, social and economic implications of pesticide use; agrarian distress, bioremediation, biosecurity; and also initiation of programmes for the popularisation of science.



Anindya Sinha
PhD (TIFR, Mumbai)
Professor

asinha@nias.iisc.ernet.in

Dr Anindya Sinha's wide-ranging research interests are in the areas of behavioural ecology and cognitive psychology of primates, animal molecular genetics, evolutionary biology, conservation biology and the philosophy of biology. He has a master's degree in botany, a doctorate in molecular biology, and has earlier worked on the biochemical genetics of yeast, the social biology of wasps, and the classical genetics of human disease. He is also interested in biology education and popularisation of science, and has lectured extensively in a variety of educational and research institutions.

joined NIAS on 15th November 1996

most significant research contribution Was responsible for the discovery of a new species of primate, the Arunachal macaque, in northeastern India although principal contributions have been in understanding the structure and evolution of the primate mind.



Sindhu Radhakrishna
PhD (Mysore University)
Associate Professor

sindhu@nias.iisc.ernet.in

Dr Sindhu Radhakrishna holds a master's degree in psychology and a doctorate in animal behaviour. Her research interests are in the fields of primatology, behavioral ecology and conservation biology, and her work has focused on gaining a better understanding of social behaviour and communication in nocturnal primates. She was awarded the INSA Young Scientist's Award in recognition of the significance of her doctoral research on the behavioural ecology of the Slender loris, a nocturnal primate found in southern India.

joined NIAS on 1st September 2002

most significant research contribution Study on non-human primates contributing to significant understanding of human sociality.



K Ramachandra
PhD (Bombay University)
Visiting Professor

kram@math.tifrbng.res.in

Dr Ramachandra is a mathematician interested in the analytical theory of numbers. He has done extensive research relating to the works of renowned mathematicians such as S Ramanujan, GH Hardy and IM Vinogradov. He was Professor at TIFR Bombay till 1996. His lectures on the 'Mean Value and Omega Theorems for the Riemann Zeta-function' was published by Springer-Verlag in 1995. He was elected as the President of the Calcutta Mathematical Society for the term 2006-2009. Recently he has published a book on *Theory of Numbers* by Narosa Publications.

joined NIAS on 1st September 1996

most significant research contribution Significant study of some difficult aspects of the Riemann's zeta function. Study of the simple zeros of $(\zeta(s)-a)(\zeta(s)-b)$. Where a and b are unequal and none equal to 1, $s=\sigma+it$. The gaps between simple zeros with imaginary part between x and 2x are less than a constant times $\log \log x$.



Dilip Ahuja
PhD (Virginia, USA)
Professor

dahuja@nias.iisc.ernet.in, drahuja@gmail.com

Dr Dilip Ahuja is the ISRO Professor of Science and Technology Policy. In 2007 he was on a sabbatical at the UN Foundation in Washington, DC as a Senior Policy Advisor to the Global Leadership for Climate Action. He has been a Special Advisor to the Inter Academy Council's recently concluded study titled 'Lighting the Way: Toward a Sustainable Energy Future'. He has contributed to several reports of the Intergovernmental Panel on Climate Change. Prior to joining NIAS, he was a Senior Environmental Specialist at the Global Environment Facility Secretariat. He obtained his doctorate from the University of Virginia at Charlottesville and his Bachelor's in Electrical Engineering from the Indian Institute of Technology, Bombay.

joined NIAS on 13th December 1999

most significant research contribution Proposed with his collaborators, most recently, advancing Indian Standard Time by half an hour. A recent publication estimates the energy savings and other benefits to be obtained from such a shift.



Kshama Lakshman
PhD (CFTRI, Mysore)
Postdoctoral Research Associate

Kshama99_1999@yahoo.com

Dr. Kshama Lakshman has a doctorate in Microbiology from Central Food Technological Research Institute, Mysore with specialization in Bacterial Polymers. She was also a postdoctoral fellow at the Indian Institute of Science, Bangalore and has worked in the areas of Bioremediation, Bioreagents and Biosurfactants. Her current research interests at NIAS are in the areas of Biosecurity.

joined NIAS on 2nd February 2009



AR Vasavi
PhD (Michigan State, USA)
Professor

arvasavi@gmail.com

Dr AR Vasavi has a doctorate in social anthropology from Michigan State University. Her academic interests are in social anthropology of India, agrarian studies, and sociology of education. She taught at Tufts University, Indian Institute of Management (Kozhikode) and at several other institutions in India. She has conducted field research in various parts of India and has published a book, *Harbingers of Rain: Land and Life in South India*. Since 2002, she has been coordinating the District Quality Education Project, which seeks to enhance the quality of elementary education in Chamarajnagar district.

joined NIAS on 1st May 1997

most significant research contribution Identified and presented the onset of the 'agrarian distress' in 1999 and continues to work on the issue.



N Shantha Mohan
PhD (ISEC, Bangalore)
Professor

shantham@nias.iisc.ernet.in

Dr Shantha Mohan is an educationist with specialisation in the area of economics of education. Over the past twenty-five years she has been engaged in conducting research from a gender perspective on issues related to governance, violence against women, water and literacy. Her interests also include developing new methodologies and models for intervention and policy advocacy. She has been the recipient of the Shastri Indo-Canadian Women in Development Fellowship and The National Council for Research on Women Award, USA. She has published several books, articles and papers. She has coordinated the baseline study on 'Women and Political Participation in India' to facilitate the Fulfillment of State Obligation to Women's Equality

joined NIAS on 3rd November 1997

most significant research contribution Evolved parameters for engendering governance in Panchayati Raj institutions in Karnataka.



Narendar Pani
PhD (ISEC, Bangalore)
Professor

narendar@nias.iisc.ernet.in, narendar.pani@gmail.com

Dr Narendar Pani is an economist by training, he has, over the last thirty years, written extensively on a variety of subjects. He is the author of *Inclusive Economics: Gandhian Method and Contemporary Policy, Redefining Conservatism: An Essay on the Bias of India's Economic Reform*, and *Reforms to Pre-empt Change: Land Legislation in Karnataka*. He has published a number of academic articles in India and abroad. He is also the author of an explainer on the WTO, two novels, a booklet on theatre and several hundred articles on the editorial pages of newspapers.

joined NIAS on 9th April 2007

most significant research contribution Reformulated the Gandhian method to make it an effective tool to understand contemporary policy making.



Carol Upadhy
PhD (Yale University, USA)
Professor

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Carol Upadhy is a social anthropologist. Her research interests include globalisation, economic development and social change in India; economic anthropology; the history and politics of anthropology; and urban sociology. She is the author of several articles on Indian software professionals, transnationalism, and the middle class, land rights in Jharkhand, the history of anthropology in India, and agrarian development and social change in coastal Andhra Pradesh. She is co-editor (with A.R. Vasavi) of *In an Outpost of the Global Economy: Work and Workers in India's Information Technology Industry* (Routledge, New Delhi, 2008), and (with Mario Rutten) *Small Business Entrepreneurs in Asia and Europe*. Dr. Upadhy is co-anchor of the NIAS Urban Research and Policy Programme, and from 2010 will be directing a new international collaborative research programme entitled 'Provincial Globalisation: The Impact of Reverse Transnational Flows in India's Regional Towns' in collaboration with Prof. Mario Rutten (University of Amsterdam), funded by WOTRO (the Netherlands). Earlier she taught at SNDT Women's University in Mumbai.

joined NIAS on 1st September 2003

most significant research contribution Contributed new theoretical insights and ethnographic data to the anthropology of globalisation through research on Bangalore's software industry.



BK Anitha
PhD (ISEC, Bangalore)
Associate Professor

anibk@nias.iisc.ernet.in, anitha_ashok2002@yahoo.com

Dr Anitha is a science graduate and moved on to specialise in the field of education. Her thesis was published as a book, *Village, Caste and Education* (2000). She coauthored the book *Status of Rural Women in Karnataka* (1998, reprinted 2006). Her research interests span the broad disciplines of education and gender. During the past decade she has been engaged in both field based research and theoretical analysis on issues related to quality of education, academic leadership, innovations in higher education, gender, and science and technology institutions. She has also extensively worked in the area of quality of primary education with specific focus on classroom processes and school community relationship. Dr Anitha's expertise in the area of gender covers a wide spectrum, from examining conceptual and methodological strands of gender relations to political participation and decentralised governance as well as understanding violence against women in rural contexts.

joined NIAS on 2nd January 1995

most significant research contribution Contributed to the understanding of women's status adopting the framework of access to and control over resources.



Solomon Benjamin
PhD (MIT, USA)
Associate Professor

Solomon Benjamin is Associate Professor at the NIAS. His research interests include city economy, land, politics, and poverty. He has published in the Int. Journal of Urban and Regional Research, SARAI reader, GeoForum and Environment and Urbanisation. Till recently, he was a faculty at the University of Toronto's Department of Political Science. There, his research proposed the concept of 'Occupancy Urbanism' that reflects on a grassroots' processes of land settlement and tenure based popular politicization shaping economy. Dr. Benjamin has led teams as part of several international research projects on issues of chronic poverty, governance, and land. These have focused on the local consequences of East Bangalore's global connection in land and economy, on the digitization of land records, and in 2001, membership in a large project on poverty and governance in Bangalore, that was part of a nine city study in Asia, Africa, and Latin America. He has coordinated a project of participatory environmental planning involving municipal councils in coastal South India between 1998 and 2001, and followed by leading a team on an economic development plan for small towns in the Kolkata metro region. Benjamin's early work (1986 to 1995) developed the idea of 'Neighborhood as Factory' via an ethnographic look of the politics of land in East Delhi's home based industrial areas. This resulted in a book on the connections between urban employment generation and land, and formed his PhD from MIT's Department of Urban Studies and Planning.

joined NIAS on 15th June 2009

most significant research contribution Dr. Benjamin's significant theoretical contribution is his concept of 'Occupancy Urbanism' that encapsulates a complex phenomenon of transforming urban land tenures that re-constitutes property in real estate, commodity, and shape the popular appropriation of institutional politics.



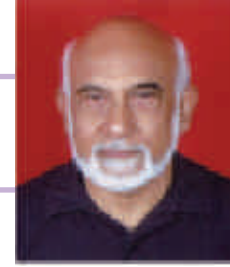
M. Amarjeet Singh
PhD (NEHU, Shillong)
Assistant Professor

amarjeetdelhi@gmail.com

A student of sociology by training, Amarjeet Singh's research interests covers: Conflict Analysis and Resolution, Conflict and Development, Identity Politics; and North-East India. Prior to joining NIAS, he has worked at the Institute for Defence Studies and Analyses (IDSA), New Delhi.

joined NIAS on 1st October 2009

most significant research contribution Study on ethnic diversity, autonomy and territoriality in India.



DP Sen Gupta
PhD (Liverpool University)
Visiting Professor

sengupta.dp@gmail.com

An Honours graduate in Physics from Calcutta Presidency College and in Electrical Engineering from I.I.T, Kharagpur, Sen Gupta took his Ph.D from Liverpool University where he taught for five years before he joined the Indian Institute of Science (IISc), Bangalore and carried out teaching and research for about three decades. He received awards for teaching excellence at both Liverpool University and IISc where he was awarded a special chair for Energy Studies. He had research links with a number of British Universities, particularly with the University of Liverpool and Cavendish Laboratory, Cambridge, and the University of Illinois, Urbana Champaign. An Emeritus Fellow at the IISc he is presently a Visiting Professor at NIAS, Bangalore. He has co-authored books published by Butterworths, McMillan, Alpha International, London and recently by IISc Press and World Scientific. He has published a number of books for children.



SS Meenakshisundaram
PhD (JMINU, New Delhi)
Visiting Professor

meenakshi54@hotmail.com

Dr. S. S. Meenakshisundaram is a Post Graduate in Mathematics from Loyola College, Madras and holds a Ph.D. in Development Economics from Jamia Milia Islamia National University, New Delhi. He joined the Karnataka cadre of the Indian Administrative Service in 1968. During his career he had held a number of assignments including Secretary, Rural Development and Panchayati Raj department when Karnataka launched its new system of panchayatiraj institutions. He was a Visiting Fellow at the Institute of Development Studies at the University of Sussex, United Kingdom for one year. Besides several articles and papers on Panchayatiraj and Rural Development, he has also published a book on "Decentralization in Developing Countries" with special reference to Nigeria, China and India during 1994. After working as Principal Secretary to the Chief Minister of Karnataka and Joint Secretary to three Prime Ministers of India, he also served as Adviser in the Planning Commission and Secretary in the ministry of Rural Development. He was also the Dy. Chairman of the State Planning Board when Karnataka was under the President's Rule. Currently he is the Executive vice Chairman of MYR ADA, a voluntary organization in the field of building people's institutions for development and a Visiting Professor at Institute of Social and Economic Change, Bangalore. His research interests include rural development, poverty alleviation, voluntary action and decentralized governance.

PROGRAMMES & PROJECTS



Malati Das
IAS, PhD (University of Hawaii)
Visiting Professor

malatidas@gmail.com

Dr Malati Das received a PhD in Political Science from the University of Hawaii (1987) where she also taught courses. Her research interests are in comparative politics, public policy, governance, gender, social exclusion, human development, and people's participation and decentralized governance. She is currently working on conflict resolution with reference to the Baba Budan darga/Datta Peetha issue in Karnataka. As an officer of the Indian Administrative Service (I.A.S.), Karnataka cadre, she has worked in diverse areas with a special focus on economic planning, education and gender. Some critical assignments include Chief Secretary to the Government of Karnataka; Additional Chief Secretary; Additional Chief Secretary and Principal Secretary, Planning, Statistics, Science and Technology department; Principal Secretary, Education (Higher Education) department; Principal Secretary, Animal Husbandry and Fisheries department and Secretary, Women and Child Development department. Her publications include papers on women's policy implementation in Ethiopia for the World Bank and chapters for the UNDP- Planning Commission published *Karnataka Human Development Report 2005* which she also edited.

International Strategic & Security Studies Programme

The International Strategic & Security Studies Programme at NIAS promotes and conducts research that addresses the strategic and security concerns relevant to India. It has over the years carried out a number of studies in technology dominated areas of international security, with a special emphasis on nuclear weapons and missiles. NIAS has also facilitated exchange of knowledge and views between interested groups working around the globe on issues related to international security through meetings, conferences and invited talks. The continuing and ongoing dialogue with the Committee on International Security and Arms Control (CISAC) of the US National Academy of Sciences reflects the Programme's commitment to using knowledge to help improve understanding between countries. The major areas of interest include China, Pakistan, space weaponisation, techno-economics of nuclear power and nuclear weapons. The programme has also started work on terrorism.



Shivali Tukdeo
PhD (University of Illinois at Urbana Champaign)
Research Associate

tukdeo@gmail.com

Her research focuses on education policy; critical social and political theory; globalization; and technology and education. She is currently working on a book manuscript tentatively titled '*India Goes to School: Education Policy and the Politics of Diasporic Action*'; Her other projects include: (a) Education among the Adivasis: A Perspective Paper (with A.R. Vasavi) (b) Engaging with Right to Education (RTE): Teachers, Administrators and Parents.

joined NIAS on 15th March 2010



Rajaram Nagappa
BSc DMIT (MIT, Chennai)
Programme Head & Visiting Professor

r.nagappa@gmail.com

Prof Rajaram Nagappa has specialised in aerospace propulsion and has worked extensively in the design and development of solid propellant rockets. His interests are in missile technology and space weaponisation. He has served in the Vikram Sarabhai Space Centre, ISRO as its Associate Director, and later was Pandalai Memorial Chair Professor at Anna University, Chennai. He has also taught at Technion-Israel Institute of Technology, Israel. He is a recipient of the Astronautical Society of India Award, Distinguished Alumnus Award of the Madras Institute of Technology, DRDO's Agni Award for Excellence in Self Reliance, Certificate of Appreciation of the International Astronautical Federation and the Honorary Fellowship of the High Energy Materials Society of India. His recent work includes an assessment of the Pakistani cruise missiles and an assessment of the Iranian satellite launch vehicle Safir. He has also traced the development of fighter aircraft in China as a part of a study on China's Science & Technology capability.

joined NIAS on 1st February 2007

most significant research contribution Analysis of Pakistan's ballistic missile production capacity.



Manabrata Guha
PhD (University of Lancaster, UK)
Assistant Professor

mguha@nias.iisc.ernet.in

Dr. Guha's research interests include the philosophy of war, the history and evolution of military theory, and future warfare "concepts" of operations. His current work includes the re-theorization of war and combat based on counter-tactical and counter-strategic concepts of operations.

joined NIAS on 18th December, 2009



S Gopal
MSc (Madras University)
Sir Ashutosh Mukherjee Visiting Professor

muthason@gmail.com

Prof S Gopal has been with the Govt. of India for more than three and a half decades during which he had wide experience in analysis of national and international security and strategic affairs. After retirement he was instrumental, along with some other colleagues, in starting a think tank - Institute of Contemporary Studies Bangalore. The Institute had started a quarterly called Contemporary Analyst in which S Gopal has been a regular contributor. One of the important papers has been on CTBT entitled India and the CTBT. He is a member of the Asia Centre Bangalore where he had presented a paper an assessment on Pakistan's security Scenario. In a seminar on Naxalism organized by the Observer Research Foundation Chennai he presented a paper on "The Naxalite Movement – Impact of External Networking ". In a Seminar on Srilanka, recently organized by Indian Centre for South Asian Studies and Centre for Asia Studies, a paper on Role of the Janata Vimukti Peramuna in Srilankan politics with particular reference to the Ethnic question was presented. S Gopal has also wide experience in technical and imagery intelligence analysis.

joined NIAS on 1st May, 2010



S Chandrashekar
BTech (IIT, Madras), PGDM (IIM, Calcutta)
JRD Tata Visiting Professor

schandra@nias.iisc.ernet.in

Prof S Chandrashekar is currently a Professor in the Corporate Strategy and Policy Area at the Indian Institute of Management Bangalore (IIMB). Prior to his joining IIMB he spent more than 20 years working at the Indian Space Research Organisation (ISRO). His work at ISRO covered all parts of the programme - satellite, rockets as well as the applications of space technology especially remote sensing. He was also involved with activities related to international co-operation and has represented and led Indian delegations to the United Nations Committee on the Peaceful Uses of Outer Space. His research interests at IIMB include technology and competitive advantage, national technology priorities and national technology policy, studies on innovation, telecommunications in the Indian context, national innovation systems, modelling complex systems and national security issues. His recent work includes a study of sensitive installations using open source satellite imagery. He has also been involved with other members of the group on a micro-level comparative case study of Chinese capabilities in one domain of technology related to the development of turbo-fan aircraft engine technology.

joined NIAS on 2nd July 2004

most significant research contribution Analysis of technical and organisational aspects of China's missile capability; assessment of Pakistan missiles; and assessing the Indo-US Civil nuclear deal.



N Ramani
PhD (IISc, Bangalore)
Visiting Professor

narayan.ramani@gmail.com

Dr N Ramani worked at the ISRO Satellite Centre in the areas of software development for spacecraft mission operations and in the establishment and management of the central computing facility. Led the activities relating to the design, development, testing and implementation of software for real time health monitoring and control of satellites. Pioneered the transition from main frame world of Fortran and assembler codes to distributed computing based on off-the-shelf systems with the best of breed Engineering Application Software packages. Worked on computer related issues that have over all impact on the organization; such as information security, software reliability, man power attrition, open source, Y2K and HPC. With Prof R Narasimha, carried out the Indian Airlines AVRO HS748 fleet performance simulation for airworthiness assessment for the National Committee headed by Prof S Dhawan. Worked on several Government committees that enabled the computerization plans of ADA, CBDT, EPFO, IMD/MES and SBI. Awards: Distinguished Aero-Alumnus of the Department of Aerospace Engineering of the Indian Institute of Science (1992) and Astronautical Society of India AWARD (1999).

He has recently completed and validated a 3-D missile trajectory programme, which can provide the path of the missile from any launch location to any target. He has also carried out an analysis of the US Permissive Action Link system used to protect US nuclear weapons. Based on this he has conceptualized a scheme on how Pakistan could have implemented a system to protect its nuclear weapons from accidental or unauthorized use.

joined NIAS on 1st November, 2007



Lalitha Sundaresan
PhD (Indian Statistical Institute, Kolkata)
Visiting Professor

sundaresan.lalitha@gmail.com

Dr Lalitha Sundaresan has a doctorate from the Indian Statistical Institute, Kolkata where her work was on digital processing of multi-satellite data. She was a scientist at the Indian Space Research Organization where she carried out studies to evaluate the usefulness of satellite remote sensing for monitoring natural resources, and natural disasters with special reference to India. She worked as a Principal Scientific Officer at the Department of Science and Technology, India. While at DST, she was involved with the setting up of Natural Resources Data Base centers in the districts of Karnataka. Together with IIT, Bombay, she was also involved in the development of the indigenous Geographical Information Software (GIS). Coordinated training programs given by DST on the use of NRDMS and GIS for development planning. Lalitha has also taught Mathematics and Statistics at secondary and tertiary levels.

Her recent works include the analysis of measurement errors in missile images obtained from open sources and the resulting impact of these errors on missile performance. She has also studied the Chinese university / research institution network and collaboration on superalloys, as a critical part of the micro-level case study of Chinese capabilities in turbofan engine technology.

joined NIAS on 14th May 2008

Urban Research and Policy

The main objective of the Urban Research and Policy Programme is 'to effect a change in people's understanding of, and attitudes towards, urban processes and issues, with a view to creating urban settlements that function well and are socially just, economically dynamic, culturally vibrant, ecologically sustainable and politically participative'. The programme carries out grounded, interdisciplinary and policy-relevant research on pressing urban issues; provides a platform for exchange of ideas among different stakeholders including government, civil society, activists, academics, and ordinary citizens; engages in advocacy and outreach; and serves as a think tank on urban problems. Current and planned research in Karnataka, Andhra Pradesh and other states focuses on urban governance and poverty, urban ecology, and urban land and commons.

Contact : Carol Upadhy and Solomon Benjamin

Cognition

The Cognition Programme is based on the assumption that cognition and other mental phenomena are central to the functioning of all living beings. To put it another way, the fundamental principles governing cognition run from single cells to human societies. Further, we believe cognition should be studied comprehensively as opposed to bits and pieces (which is the usual scientific approach), with the larger view of life on the one hand and classical problems in the social sciences and the humanities on the other. Such a birds'-eye view of cognition inherently calls for an interdisciplinary approach, with crucial inputs from biology, philosophy, mathematics and cognitive science. The main projects that will constitute the research of the cognition programme over the next five years are: Fundamental Concepts in Cognition, Mathematical Modelling, Cross-species Cognition and Cognitive Approaches to the Social Sciences.

Contact : Rajesh Kasturirangan

Conflict Resolution

The Conflict Resolution Programme was set up at NIAS in 2009 to address any knowledge deficit that may exist in the efforts to address conflicts that have had an effect on India or have the potential to do so. While the choice of conflicts to analyse is influenced by their effects on the country, the conflicts themselves may occur on the local, national or even international stage. The knowledge deficits are addressed both at the level of original research as well as in terms of dissemination of what is known about particular conflicts to those who are affected by them or are in a position to influence their course. The original research aims at generating empirical evidence of conflicts as well as the conceptualization that this evidence may demand. This approach has helped the programme develop alternative approaches to specific conflicts, like the one on sharing Cauvery waters, as well fresh conceptualization of conflict-laden issues like reservations. At the core of the dissemination process is the series of 'Backgrounders on Conflict' which aim to provide an authentic and yet accessible account of major conflicts. These backgrounders – the first in the series being one on Manipur – are expected to provide a useful first information report to those, like young bureaucrats or journalists, who require an overview of a specific conflict at short notice. The programme hopes, over time, to emerge as a respected source of information, analysis and insights into conflicts that are of interest to India. At that point it would be in a position to offer a course on this important area.

Contact: Narendar Pani

Education Portfolio

The Education Programme at NIAS is a consolidation of work in various projects and academic activities conducted at the institute over the past decade. Drawing on a range of experiences, the EDUCATION PORTFOLIO is premised on observations that the education system in India, at all levels, is entrapped in several contradictions. On the one hand, mass elementary education remains limited with problems of access, equity and quality, while on the other hand, select specialized institutions of higher education are celebrated for the generation of creative and global talent. Even as existing institutions face a crisis in management and quality, several new, private institutions are catering to differential financial capabilities of households. The challenges are multiple: how to provide equal and quality education to all? What models and practices of education are suitable for a diverse population?



How can local and national priorities be matched with the pressures of global regimes? And, what linkages must education institutions have with the social, political and economic worlds of the people? Attempting to address these challenges and drawing on NIAS's mandate of being a multi-disciplinary institute that can generate new ideas and knowledge and act as a think-tank to government and private sectors and agencies, the EDUCATION PORTFOLIO will focus on linking research with policy-making and advocacy. The research findings will be disseminated in various forms to different stakeholders using multiple strategies of publications- academic, policy documents, organization of thematic conferences, workshops, facilitating exchange of experiences of education leaders, managers, teaching professionals and students.

Contact : AR Vasavi and Anitha BK

Water

Water is a vital resource and is an area of both contention and conflict. These conflicts could be between villages, blocks, districts, states or countries, between rural, peri-urban and urban areas, between the rich and the disadvantaged, between various stakeholders and different sectors. Thus, the nature of these conflicts is diverse and methods adopted in addressing them are often constrained by the restrictive and dominant approach that is adopted in addressing them. It is further aggravated by the lack of objective and validated facts to facilitate rational dialogue and decision-making among the various stakeholders that could lead to acceptable solutions. It is therefore important that a multidisciplinary perspective be adopted in order to understand the complexities and the inter-connectedness of the different dimensions regarding the sector in order to meet the needs of the country. The primary objectives of the water programme include: Research for generating a data and information base and analysing them using a conceptual framework which adopts a multidisciplinary perspective; Provide platforms for sharing the results of the research and facilitate multi stakeholder dialogues to influence policy; Strengthen networks and facilitate the participation of partnerships from the local to the global (Zonal Water Partnerships, Country Water Partnerships to Global Water Partnerships and other institutions and organisations) in research, dialogue and advocacy activities.

Contact: Shantha Mohan

Biosecurity

Biosecurity research aims to bring about the right practices evolved through scientific approaches for biosecurity. It also focuses on the stewardship in implementing the security options keeping in view of India's changing socio cultural setup as well as the lacunae in the system in order to support regulatory and policy decisions. The main objectives of the research include biosecurity and society, biosecurity and economy, legal and regulatory aspects of biosecurity and the science of practicing biosecurity.

Contact : PK Shetty

Ecology, Behaviour and Conservation

The Ecology, Behaviour and Conservation Programme has been largely exploring the ecology, behaviour, cognition, genetics and conservation status of several species and populations of primates across the country. Over the last year, the principal projects it has initiated or continued include long-term studies on the demography, behavioural ecology, population genetics and conservation of two macaque species, the bonnet macaque of southern India and the Arunachal macaque of Arunachal Pradesh, a short-term study on the behavioural ecology of mixed troops of rhesus and bonnet macaques in Maharashtra, the community ecology and conservation of primates in Assam, and the ecology and conservation status of the liontailed macaque and slender loris in southern India and the slow loris in northeastern India. We have also initiated a new collaborative project on the behavioural genetics, exploring the serotonin uptake pathway, in three macaque species. Finally, the Programme has continued to explore the ecology and behaviour of several non-primate species including pygmy hogs, flying squirrels, shortwings and flying lizards!

Contact : Anindya Sinha and Sindhu Radhakrishna

Provincial Globalisation: The Impact of Reverse Transnational Flows in India's Regional Towns

'Provincial Globalisation' is a collaborative research programme of the Amsterdam Institute for Social Science Research, University of Amsterdam, and the National Institute of Advanced Studies, Bangalore, supported by a WOTRO Integrated Programme grant (the Netherlands). This five-year research programme, starting in January 2010, will investigate processes of globalisation in provincial towns of India by tracing transnational reverse flows of resources transmitted by migrants to their home regions. These flows include economic resources such as remittances, investments and charitable donations, as well as 'social remittances' and cultural flows. The five doctoral and post-doctoral projects funded under the programme will examine the impacts of these reverse flows on social development in coastal Andhra Pradesh, central Gujarat, and coastal Karnataka, focusing on the major towns of these regions and their rural hinterlands.

Contact : Carol Upadhya

Study on Estimating Energy Savings by Modifying Indian Standard Time

The Bureau of Energy Efficiency has made a grant to NIAS to study the effect of three proposals of modifying Indian Standard Time, namely: (a) introduction of bi-annually cycling Daylight Saving Time (b) advancing IST ahead by 30 minutes and (c) having 2 time zones in the country. Based on a collection of five minute electricity consumption data over a year in relevant geographical regions, the study will estimate the scope for electricity and fossil fuel savings. It will identify states and sectors which are likely to get affected and compare the advantages and disadvantages of each of the 3 options. Finally, the study will draft recommendation on the best option for India.

Contact : Dilip Ahuja and DP Sengupta

Interdisciplinary Economics

The programme on interdisciplinary economics is supported by the Reserve Bank of India. While much of interdisciplinary economics, as a field, concentrates on using economic concepts to understand other social science disciplines, the focus of this programme is on using concepts from other social sciences to provide a more inclusive view of economic issues. By bringing into economic analysis elements of a situation that would normally be seen to be in the domain of other social sciences, the programme hopes to capture the critical role that social, political, technological and environmental issues play in the working of the economy. The programme includes an effort to use ethnography and other methods from social anthropology to provide a richer analysis of farmers' suicides. A project has also been undertaken on the garment industry in Bangalore which uses not just economic analysis but also concepts from urban sociology to provide greater, and more inclusive, insights into the process of globalisation.

Contact: Narendar Pani

Heritage Science

Heritage science is an area of study which has as its aim the study of the scientific aspects of heritage within the wider parameters of the issues of the documentation, preservation and management of culture. Activities under the broad umbrella of heritage science include research in materials heritage, history of science and archaeometallurgy, ethnoarchaeology and archaeoastronomy and in conjunction with projects such as the UKIERI 'Pioneering Metallurgy' project.

Contact: Sharada Srinivasan and S Ranganathan



NIAS PHD PROGRAMME



In collaboration with Manipal University and Mysore University, NIAS runs a doctoral programme in the areas in which it specialises. NIAS offers fellowships sponsored by the Department of Science and Technology and by the Indian Space Research Organisation to a limited number of students pursuing PhD studies. Presently there are twenty full-time doctoral students specialising in various areas under the respective schools.

DOCTORAL STUDENTS



SK Arun Murthi

Arun's research interests are primarily in analytic philosophy, specifically in the areas of philosophy of science. He works on the philosophical analysis of laws of nature and scientific explanation and properties.

Arun has a bachelor's degree in engineering and master's degrees in business administration as well as philosophy.

arun@nias.iisc.ernet.in



MB Rajani

Rajani's research is in the area of archaeological investigations using remote sensing techniques. The significance of this study is that it is a multidisciplinary research using the state-of-the-art space technology for archaeological study.

Rajani has a master's degree in art & design. She is a Post-graduate Fellow of the Royal Geographical Society.

rajanihf@rediffmail.com, rajanihf@gmail.com



Meera Baidur

Meera pursues research in the area of environmental philosophy. Her focus is on the conceptualisation of nature in Indian traditions of thought, with special reference to Vedic, Sankhya, Yoga and Jaina traditions.

Meera has a bachelor's degree in environmental science and master's in psychology.

mansilight@gmail.com



Hema Thakur

Hema's research interest lies in Early Historic Archaeology of Karnataka/Deccan. She has a Master of Philosophy in History (University of Delhi, Delhi). Her M. Phil Thesis has been accepted for publication by B.A.R. - British Archaeological Reports.

hema@nias.iisc.ernet.in, singhhema10@yahoo.co.in



Rolla Das

Rolla's areas of research are Gestures, communication, linguistics, pragmatics and action. She has a M A in Philosophy (Cognitive Science) from Jadavpur University in 2008, and B A in Philosophy and Cognitive Science (Major) with credits on German Literature, Language & Civilization studies.

rolladas@gmail.com



Lakshmi K

Lakshmi's areas of research are Self and well-being, Mental health, Counselling, Psychotherapy and Indian Psychology. She has a M.A. and M.Phil (Psychology), from Osmania University. Her MPhil thesis was on 'Self perception as a function of Adjustment, social support, and academic achievement'. She also has a MA in Counseling from Santa Clara University, USA.

lakshmi@nias.iisc.ernet.in, 10.lakshmi@gmail.com



Kishor G Bhat

Kishor works in analytic theory of numbers with a focus on prime number theory, dynamical systems with a focus on chaos theory, and mathematical modeling of various social, ecological, and physical systems using ideas from topology, acoustics and dynamical systems.

Kishor has a bachelor's degree in mathematics and master's in mathematics & scientific computing.

kishor@nias.iisc.ernet.in



Swarnali Majumdar

Swarnali's area of research is non-linear signal processing. She is working on the problem of non-linear system identification. In particular she focuses on time series analysis, specifically on ECG and speech signals.

Swarnali has a master's degree in mathematics.

swarno_r@yahoo.co.in



PS Sajini Anand

Sajini's broad area of research is applications of chaos theory to engineering and biology. Currently she is interested in cryptanalysis using nonlinear methods. She is also working on non-linear data compression methods which could find applications in medicine (compression and modeling of multidimensional EEG/ECG signals).

Sajini has a master's degree in electronic science.

sajini@nias.iisc.ernet.in, sachoo@gmail.com



KG Sreeja

Sreeja's research area is agroecology wherein her specific interest lies in understanding the linkages between agriculture and its relationship with land and other resources which shape the landscape and agroecology of a river basin.

Sreeja has a master's degree in agriculture.

kg.sreeja@gmail.com



Muthuswamy Murugan

Murugan's broad area of research is agroecology of spices and plantation crops in tropical and subtropical high altitude mountain regions. The specific area of his doctoral research is the 'Investigation on the impact of plant protection and production chemicals and recent climate change in the cardamom hills on the productivity of small cardamom and sustainability of ecosystem'. Murugan has a bachelor's degree in horticulture, and master's in agriculture. He is Assistant Professor at Cardamom Research Station, Kerala Agriculture University and presently on study leave.

muthupeyan@yahoo.co.in



Narayan Sharma

Narayan's research areas are community ecology and conservation of northeastern primates, effect of fragmentation on the primate diversity in the upper Brahmaputra valley, Assam, and a historical account of landscape change in the upper Brahmaputra valley.

Narayan has a master's degree in zoology.

narayansharma77@yahoo.com, narayansharma77@gmail.com



Sahana Udupa

Sahana's research area is media sociology. She is engaged in a sociological study of the transformation of the news media in Bangalore in the context of the information revolution and globalisation.

Sahana has a master's degree in journalism & mass communication.

sahana@nias.iisc.ernet.in



Rishi Kumar

Rishi studies the distribution of Rhesus and Bonnet macaques across India, and their social behavioural dynamics within mixed species troops.

Rishi has a master's degree in environmental science.

rishi_primate@yahoo.co.in



Sailen Routray

The broader area of Sailen's research is in the field of sociology of development. In his doctoral work he is trying to unravel the disjunctions between development discourse and development practice in the context of water and agriculture in Western Orissa.

Sailen has a bachelor's degree in english literature, and master's in social work (community development).

sailenroutray@gmail.com



Mayukh Chatterjee

Mayukh studies the social behavioural dynamics in a population of Bonnet macaques (*Macaca radiata radiata*) with respect to their changing ecological regimes, in Bandipur National Park in Karnataka.

Mayukh has bachelor's and master's degree in anthropology. For master's he specialised in primatology.

mayukhc2005@gmail.com



Rahul Mukhopadhyay

Rahul's research work centres around the complexities of the everyday functioning of bureaucracies with a particular focus on the educational bureaucracy in the state of Karnataka.

Rahul has a post-graduate diploma in management equivalent to master's degree in business administration.

rmukho123@rediffmail.com



Robin Vijayan

Robin studies a threatened, endemic bird, the White-bellied Shortwing in the Western Ghats. He studies their population biology and their response to habitat disturbance and forest patch size. He is also examining possible isolation between populations of geographically separated populations of this species using genetics and bird song.

Robin has a bachelor's degree in zoology and master's in ecology. Earlier he worked as Visiting Research Scholar at Centre for Ecological Sciences.

robinvijayan@yahoo.com



Anu Joy

Anu's area of research is cognitive development and its implications in the field of science education. Her research focuses on understanding how scientific concepts develop and change in middle and high school children.

Anu has a master's degree in physics.

anu@nias.iisc.ernet.in



Leena Pascal

Leena's area of research is pictorial representation in children. Her study is an attempt to understand the evolution and growth of signs and symbols in children with the objective of documenting children's own understanding and conception of the drawing process.

Leena has a master's degree in psychology, and diploma in urban poverty reduction from Rotterdam.

jpleenapascal@yahoo.co.in



Sowjanya Peddi

Sowjanya's disciplinary background is in economics, but at NIAS she is interested in studying contemporary economic and development problems from an anthropological perspective.

Sowjanya has a master's degree in economics, and MPhil in applied economics.

sowjanya.nias@gmail.com



Jafar K

Jafar's research interest is in development issues in the Indian economy. He has special interest in globalisation and intellectual property rights issues. Jafar has bachelor's and master's degree in economics. He has earlier worked at Centre for Development Studies, Tiruvananthapuram.

Jafar's PhD work is broadly on understanding the process of human development, and specifically the impact of education-led growth on capabilities.

jafkizha@gmail.com



Asha KG

Asha's research interest lies in the area of development economics.

Asha has bachelor's and master's degree in economics.

ashakuzhiparambil@gmail.com

Other Faculty members of NIAS include

Professor Emeritus

Roddam Narasimha

K Kasturirangan



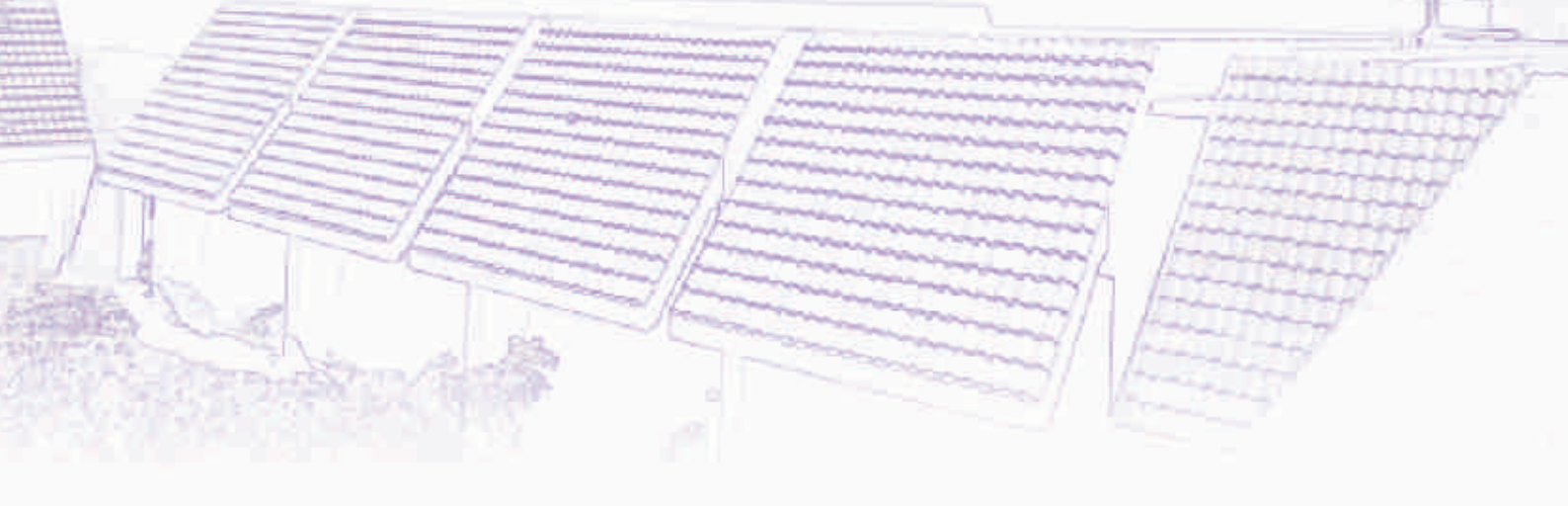
Observing a macaque in the field...



A snapshot from the District Quality Education Project



Still from *Coding Culture* film series made as part of NIAS-IDPAD project, 'Indian IT Professionals in India and Europe: Work, Culture and Transnationalism'.



NIAS COURSES

NIAS conducts several residential courses every year. Their multidisciplinary character and an integrated approach to knowledge and information distinguish these courses. The faculty for these courses include faculty from NIAS and researchers, scholars, leaders and policy makers from different parts of the country and occasionally from outside the country as well.

Course for Senior Executives

This residential annual one-week course is conducted in the month of January for executives in senior positions from the public and private sectors and from the national science and technology agencies. The first course was organised in 1989 with twenty eight participants and with the late RL Kapur as the course coordinator. In subsequent years the course coordinators were Sundar Sarukkai, PK Shetty and Sangeetha Menon. Narendar Pani is the present course coordinator. This flagship course of NIAS in recent years has been focusing on 'Excellence in Leadership' in order to respond to the challenges of decision-making and leadership from a lateral and multidisciplinary point of view. The modules for the course offer an understanding of a wide variety of issues such as governance, management and Indian culture, and are intended to provide the broad overview that leaders of tomorrow will need to possess. The



24th NIAS Course for Senior Executives on *Excellence in Leadership*, January 2010

faculty for the course includes well-known public figures, eminent scientists and technologists, academicians and veteran administrators. The participants get to interact with some of the most important leaders and decision makers in the country.

Courses sponsored by the Department of Science and Technology, Government of India

As an initiative under the 'National Programme', NIAS in collaboration with DST has been organizing training programmes on themes such as 'Multidisciplinary Perspectives on Science, Technology and Society', 'Dimensions of Nano-technology, Science and Society', 'Energy Security and Management', 'Impact of Globalisation' and 'Gender Issues in Science and Technology'.

The two week courses on 'Multidisciplinary Perspectives on Science, Technology and Society' being conducted from 2004 onwards covers a wide range of topics with implications for social, economic, political, scientific and technological issues. The past and current Course Coordinators include Prof Dilip R Ahuja, Dr MG Narasimhan. The one week course on 'Dimensions of Nanotechnology, Science and Security' were conducted in 2006, 2007 and 2009 covered topics on nano-science, nano-materials, business and society at large. Prof S Ranganathan and Dr RV Krishnan were the Course Coordinators. Another one week course was organized on the same theme in 2009 exclusively for women scientists-cum-administrators. The Course Coordinators were Dr MG Narasimhan and Dr Shobhana Narasimhan. The one week course on 'Energy Security and Management' in 2008, 2009 and 2010 were organized with special emphasis on security and management highlighting vulnerability to energy deficit and possible ways to

address it. Prof DP Sen Gupta and Prof Dilip R Ahuja were the Course Coordinators. The one week course on 'Impact of Globalisation' in 2008 and 2009 provided an overview of the process of globalization with the objective of conceptualization of the process, updates and case studies. Prof Narendar Pani was the Course Coordinator. The one week course in 2010 was organised on 'Gender Issues in Science and Technology'. The theme of this Course was on 'Transcending Barriers to Performance: Women in Science'. The Course was coordinated by Prof Shantha Mohan.



7th NIAS - DST Training Programme on *Multidisciplinary Perspectives on Science and Technology*, August 2009

The two week Course on 'Multidisciplinary Perspectives on Science, Technology and Society' which is eighth in the series, will be organized between July 26 and August 7, 2010 and will be coordinated by Dr MG Narasimhan and Dr Sharada Srinivasan.

The one week Course on 'Strategic and Security Contexts' will be organized between September 20 & 24, 2010, and will be coordinated by Dr Lalitha Sundaresan and Dr Manabrata Guha.

The one week Course on 'Gender Issues in Science and Technology' will be organized between November 22 and 26, 2010, and will be coordinated by Prof Shantha Mohan.



NIAS OUTREACH EVENTS

NIAS has emerged as a key public policy forum in India contributing to an informed national debate, and providing advice and consultancy on critical national issues. A wide spectrum of events is held, ranging from major international meetings to informal discussion groups. In the past, NIAS has been a venue for many public lectures, conferences, seminars, symposiums and workshops that are organised independently by the Institute or conjointly with other institutions. The areas cover topical areas of research in the institute and issues of social and national importance. These forums are open to students and citizens of Bangalore.

Wednesday Discussion Meetings

NIAS Wednesday Discussion Meetings are among the outreach events that have continued since the inception of the Institute. The faculty of the Institute meets every Wednesday morning for academic discussions after a lecture usually delivered by one of its members. These Wednesday meetings also serve as a forum for invited guest speakers to deliver lectures on subjects of their choice.

Sangeetha Menon is the Co-ordinator of Wednesday Discussion Meetings.



NIAS Literary, Arts and Heritage Forum

NIAS Literary, Art and Heritage Forum aims to facilitate the appreciation, promotion and study of crucial cultural and artistic aspects. Apart from lectures and book readings, the Forum aims to hold screenings of films and to promote art appreciation related to exhibitions. Earlier events include a lecture by eminent writer and former IAS officer Achala Moulik-Moses, screening of the historical documentary film 'Curse of Talakad' by Sashi Sivaraman, a talk coinciding with the exhibition on the Indian miniatures of the Fontaine Fables at the Alliance Francaise, Bangalore, by Dr Jean-Marie Lafont, and a reading of translations of Sindhi Sufi poetry by Anju Makhija. The Forum held its first seminar in November 2007, sponsored by Sahitya Akademi, New Delhi, entitled 'Sangam: Interactions of Poetry and Theatre'.

Sharada Srinivasan, Sangeetha Menon and Leena Pascal are the Co-ordinators of NIAS Literary, Art and Heritage Forum.

Associates' Programmes

NIAS Associates include distinguished persons from widely different backgrounds in industry, government, media, the arts and academia. The Associates constitute a strong base of ongoing support and interaction. NIAS organises regular Associates meetings, which include lectures, plays, and performing arts events. NIAS Associates Programme is overseen by a committee chaired by Prof S Settar. Members are Prof Dilip Ahuja, Prof PK Shetty and Dr Anitha BK.

Since the inception of this Institute, NIAS has organised about 150 Associates' Programmes. These include talks by Field Marshal Sam Manekshaw, MC; Sri Gilles Bibeau, University of Montreal, Canada; Sri Soli J Sorabjee, Former Attorney General of India; Prof Senake Bandaranayake, the Former Sri Lankan High Commissioner to India, New Delhi; Prof EC George Sudarshan, University of Texas; USA; Sir David King, Chief Scientific Advisor to the UK Government; Gen S Roychowdhury, Former Chief of Army Staff; Dr Kiran Bedi, IPS; Prof Evandro Agazzi, University of Genoa, Italy; Ambassador Dennis Kux, USA, Dr Hilary Putnam, Harvard University, USA; and others. Some of the important performing arts and plays included a violin recital by Dr N Rajam, a veena duet by Dr V Doreswamy Iyengar and Sri D Balakrishna, a Hindustani classical music recital on the Rudra Veena by Ustad Bahauddin Dagar, a cello-sitar concert by Ms Saskia de Hass (Dutch cellist) and Sri Subhedra Rao (Indian Sitarist), a showing of the film Gajagamini followed by a talk by Sri MF Hussain, and a play, Copenhagen, by Sri Gerard Bayle and his team.

PK Shetty is the Coordinator of the Associates' Programme.

NIAS Annual Memorial Lecture Series

NIAS organises two annual memorial lectures: the Dr Raja Ramanna Memorial Lecture and the Dr MN Srinivas Memorial Lecture. Another series of memorial lectures are the JRD Tata Memorial Lectures. Eminent speakers for these lectures in the past included Sri Shyam Saran, Dr Gopalakrishna Gandhi, Dr CV Sundaram, Sri NN Vohra, Prof T Scarlett Epstein.





NIAS LIBRARY

The main objective of NIAS library has been to develop a well-balanced collection of books across disciplines in which our faculty is actively engaged in research. The collection is liberal in scope but selective in titles with an emphasis on acquisition relevant to interdisciplinary research, the Institute doctoral programme as well as to courses conducted by the Institute. Over the years, the collection has also been enriched by donations of valuable books and journals from several scholars. The collection today stands at more than 11,500 books, 1,673 back volumes of journals, 44 print journals, and 2,146 online journals. The library also has a small collection of CDs, DVDs, audio and video recordings.

The library has recently received a substantial grant from the Jamshedji Tata Trust to expand its collection and for other development activities. Over the years, the research activities of the Institute have grown manifold and the library has been trying to keep pace with the expanding aims and activities of the Institute. This generous grant has helped the library enormously to develop itself and bolster the educational and research needs of the Institute. Efforts have been made to acquire basic textbooks, seminal works, reference books, journal subscriptions, reports, and databases, as well as to identify gaps in the disciplines, which are not yet adequately represented, and thus consolidating its collection uniformly across all disciplines. The library has acquired Census data of 1991 and 2001 in electronic form. The subscriptions to more than 2000 electronic journals from major publishers such as OUP, CUP, Taylor and Francis, Wiley and Sage has been provided. Subscriptions to archives and databases include JSTOR and IndiaStat.Com (in the field of education).

The facilities in the library includes two linux servers, one windows server connected to five computer terminals using thin client technology for browsing with high-speed Internet connection and one network printer and copier machine. The library uses LibSys software for housekeeping operations. The main activities including book acquisition, cataloguing and circulation have been automated. The catalogue of books is available on the web. An institutional repository containing research output of NIAS faculty and students is available on the web.

Ms Hamsa Kalyani is the Deputy Librarian and Ms Vijayalakshmi is an Executive Assistant in the Library.



Hamsa Kalyani
(MLISc, Bangalore)
Deputy Librarian

Ms Hamsa Kalyani has a Masters Degree in Library and Information Science. In addition she has completed a course on Information Technology Applications at the National Centre for Science Information, IISc, Bangalore. She has been responsible for library management at NIAS since its inception. In addition to library collection development and automation, her responsibilities include developing content and maintaining the website of NIAS. She has also developed an institutional repository of publications using the Eprints software.

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R Vijayalakshmi
Executive Assistant
(Library)

Library Committee

NIAS library is overseen by a committee chaired by Prof Anindya Sinha. Members are Prof Narendar Pani, Prof S Ranganathan, Prof Narayan Ramani and Prof Sangeetha Menon.



ADMINISTRATION



P Srinivasa Aithal
Head, Admin. & Finance

admin@nias.iisc.ernet.in, psraithal@hotmail.com

Sri Srinivasa Aithal joined NIAS in 1995. He has a master's degree in commerce from Karnataka University and a post graduate diploma in financial management from Pondicherry University. He has been overseeing the accounts of the Institute as well as its research projects. Before taking-up the role of Head of Administration and Finance of NIAS with effect from February 2009, he had also held the position of Administration & Accounts officer at the Institute.



VA Joseph
Office Manager

manager@nias.iisc.ernet.in, vajos42@hotmail.com

Capt VA Joseph (Retd) joined NIAS in 1992 after serving in the Army (Corps of Engineers) for 32 years. During his tenure in the Army he had a number of assignments including a tenure in the Indian Embassy in Addis Ababa (Ethiopia). In 1965 he was actively involved in Indo-Pak War and in 1971 he had taken part in the Bangladesh Liberation War. In appreciation of his meritorious service he was honoured by the President of India on 1st January 1992 and on 15th August 1992. His responsibility at NIAS includes the management of administration and finance.

Administrative Staff

The Administrative staff of NIAS provides support in organising various courses, programmes and other academic activities of NIAS. As occasions demand they also assist the faculty in event management and administrative work.



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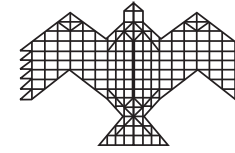
Support Staff



First row (from left to right)
Mohamad Umar, S Sampath
B Shivanandappa, V Srinivasa
G Nagaraja, N Rajesh, N Ramesh

Second row (from left to right)
M V Sudhakara, N Satyamurthy
G Venugopal, Mujeeb Pasha
Sukhdev Behera, S R Rathnam
S Revanna, R Harisha

NIAS EMBLEM



The NIAS emblem can be traced back to a remarkable Sanskrit work called the Sulva-sutras. Sulva-sutras are one of the four Kalpa-sutra texts concerned chiefly with Vedic ritual and display a deep knowledge of geometry from pre-Euclidean times. Scholars are not agreed on the precise date of the Sutras, but the text clearly pre-dates Panini and must have been composed before the 6th century B.C. The NIAS emblem displays an arrangement of bricks in the first layer of an altar called 'syena-cita'. The altar has the shape of an eagle or falcon and is described in the eleventh chapter of the Baudayana text.

The *śyēna-cita* represents imagination that inspires great mathematics and engineering – an apt symbol for the National Institute of Advanced Studies.

(Extracted from R Narasimha, *About the NIAS Emblem*, National Institute of Advanced Studies)

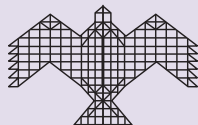
The NIAS Logo was designed by the renowned sculptor Sri Balan Nambiar.

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