



NIAS Newsletter

April 2017



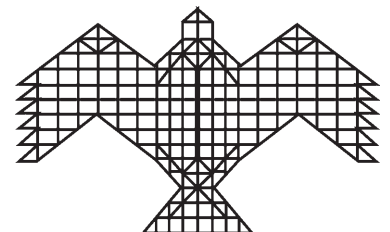
Education Programme

31st NIAS Senior Executives' Programme

Campus Life

Regular Updates

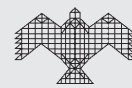
Publications and Events





The NIAS Banyan

Planted by the legendary JRD Tata in March 1993, the Banyan tree in NIAS is as old as the Institute. The NIAS Banyan symbolizes what the Institute stands for. Referred to as the *Kalpavriksha*, the Banyan stands for continuity, flowering of imagination, fulfilment of inner wishes and support multiple ecosystems. So does NIAS.



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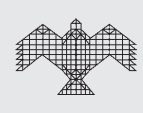
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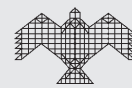
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Note from the Director

Being Multi-Disciplinary and Inclusive

One of the founding principles of NIAS has been its multi-disciplinary approaches and pursuits towards complex challenges faced by society with an objective to find solutions. Though a multi-disciplinary approach looks simple and logical, practicing the same is not easy and prevalent. The Institute has been consciously working towards this objective. Thus, I am delighted to share that we are on track and increasingly becoming multi-disciplinary in our pursuits.

Besides being multi-disciplinary in our approach, the Institute also strives to become inclusive. Starting from the top leadership down the hierarchy, everyone in the Institute – be it the senior faculty, young scholars, PhD students, administrative staff etc – the Institute works together towards achieving a common goal – reaching excellence as a habit. Be it the programme, or research and publications, or daily maintenance of the Institute and its gardens, there is contribution from the Institute as a

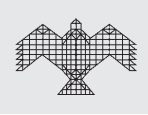
whole. This is unique to an academic institution. Once again feel privileged to mention that, with a small staff, we could achieve this at NIAS.

This Newsletter for the first quarter (Jan-Mar 2017) features our Education Programme, which is unique and effective. Initiatives such as the Gifted Children Programme, Women in STEM and Social Inclusion are some of the highlights of NIAS Education Programme. The Newsletter also highlights some of our leading capacity building programmes, including the NIAS signature Senior Executive Programme. The 31st Annual Programme titled Be a Transformational Leader, hosted thirty participants drawn from senior executives from various government organisations as well as from private industries. I wish to mention that this and our earlier programmes with Senior Executives have influenced our participants in enhancing the contributions to their organizations and the country. We work on the principle of: never complacent; always improving.

Besides the regular features highlighting Institute's programmes, publications and research, the Newsletter presents two new features. The first one – Walking through the NIAS, interacts with a senior faculty, and the second one – Unsung Heroes contains an interaction with the Institute's gardening team. Besides, this edition also has contributions from our PhD scholars about the campus life at the NIAS.

I sincerely wish that you like the Newsletter and provide us with your inputs to serve the society while staying conscious of our mandate of walking a topology of excellence through challenges with sincere efforts.

Baldev Raj
Director, NIAS



Featured Programme

NIAS Education Programme

Reaching the Unreached

“Our work has found audience in diverse forums including academic journals, national and international conferences, teachings, government expert committees at state and national levels, governing boards of educational institutions among others.”

- Anitha Kurup

The Education Programme at NIAS has, over the last two decades, developed into a strong academic programme in the country devoted to research, teaching, curriculum development, policy analysis and advocacy.

Our main objectives have been to conduct critical research in important, uncharted, non-mainstream areas of education. Our various engagements are premised on observations that the education system in India is entrapped in several contradictions.

The challenges are multiple: How to develop national models to address issues around equality and quality and excellence? What models and practices of education are suitable for a diverse population? What are stubborn persistent problems in education? How can local and national priorities be matched with the pressures of global regimes? What linkages must education institutions have with the social, political and economic worlds of the people?

In addition to the scholars from around the world, we have collaborated with administrators, government officials, students, teachers and civil society organisations.

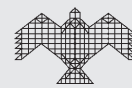
Our work is carried out through the following three nodal initiatives:

- Platform for Education Policy
- Curriculum Exchange Network
- Research in Critical Areas of Education.

Working on all levels of education and interacting with different stakeholders, we have been involved in identifying trends, reviewing schemes and policies, drafting reports and collaborating around issues involving meaningful, viable visions of education.

Highlights and Major Achievements

Our team has made significant contributions at all levels of education. In particular, our work on school quality, education of the disadvantaged, education of the gifted and women in the STEM disciplines has been recognized nationally and internationally. Our contributions in teacher education and advocacy



have gained us collaborators in various institutions and organisations across the country.

The major focus areas over the last decades have been the following:

- Quality of education in schools (1998-2008)
- Women in STEM disciplines (2007-present)
- Education of the Gifted and Talented (2010-present)
- Education among Adivasis (2010-present)

We draw on several disciplines in its inquiry and approach. Over the years, the programme has drawn on the disciplines of sociology, anthropology, cultural studies, indigenous studies and women and gender studies, history and psychology. Through our work we have also been able to secure research grants. Since 2016, four of our projects have been supported TCS-NIAS initiatives. These include: (1) Education of the Gifted and Talented (2) Social Exclusion and Education (3) Women in STEM disciplines (4) Vocational and Higher Education. Each of the four projects will go on to make a mark in the next three years.



“The Education Programme truly encapsulates what NIAS stands for - work which is interdisciplinary, socially responsible as well as nationally relevant and important. The quality of the work along with the significant impact due to its outreach workshop and courses should make this programme a model for others”

- Sundar Sarukkai

NIAS Education Programme

Social Exclusion and Education

Education has assumed an important place in the overall social and political imagination in India. While there has been phenomenal expansion and democratization of education since independence, legacies of discrimination and denial persist.

We hope to understand the processes that impact marginalization of communities and the ways in which social disadvantage and formal schooling are connected. Our inquiry is interdisciplinary, historically attentive and fieldbased.

Milestones

Following are the milestones of the Programme's focus on Social Exclusion and Education:

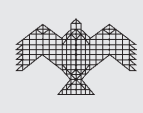
- The Programme has developed a Learning Experience Survey that is currently being

conducted in various Ashram schools of Maharashtra

- The Programme organized several teachers meets, training and dialogues on curricula
- The Programme also published its work in scholarly as well as popular spheres

Way Forward

- As we build on our work and expand, we hope to develop a robust research trajectory on education and social justice
- We also realize the need to develop curricula and pay attention to teacher education in ways that are attentive to the demands of contemporary times



Education Programme Looking Ahead: A Road Map

With decades long experience in field based research on all levels of education and our attempts to link education research to policy, advocacy, teaching and outreach, the education programme at NIAS has the potential to become one of the leading centres of education research in the country.

We want to build on our current strength and expand in the next few years in order to address critical and relevant problems of education. We hope to establish stronger ties with schools, colleges, universities government departments and policy makers.

Women in Science Technology Engineering and Mathematics

The Women in STEM project at NIAS has been active for over a decade. The earlier IASc- NIAS study “Trained Scientific Women Power: How much are we losing and why?” not only provided a large database of women professionals but also raised critical questions, which are now being addressed through a qualitative inquiry.

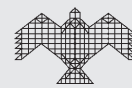
The present study seeks to record 1) the diversity of women scientists’ experiences vis-à-vis disciplinary and institutional spaces and 2) the strategies deployed by women scientists to assemble favorable conditions for research and professional growth.

To briefly elaborate, research in India is done in a variety of settings: in research institutions, national labs, institutions of national importance, central, state, deemed and private universities and so on. Funding and laboratory facilities vary as do access to reputed networks. In this context, the study traces how differently positioned women scientists navigate this diversity to do credible research. Further, by comparing across generations, the study will also document the impacts of changing institutional frameworks in



“Our work includes a combination of intensive field work, social/cultural critique and policy analysis. Our work situates the problem within the complex and contradictory social reality; it also has a strong participatory component as we work with students, teachers and administrators among others.”

- Shivali Tukdeo



NIAS Education Programme

National Programme of the Gifted and Talented

The NIAS National Gifted Education Programme is first of its kind in India. The program aims at developing a robust India based model for identifying and mentoring gifted children in the age group 3-18 years. It was initiated by Prof R Chidambaram from the office of the Principal Scientific



Adviser, Government of India in 2010. The advisory group steering the programme includes Prof Baldev Raj, Prof VS Ramamurthy and Prof S Mohan (IISc).

Gifted children are those who have exceptional possession of untrained and spontaneously expressed natural abilities in at least one domain to a degree that places the individual at least among the top 3 per cent as compared to their age peers.

Gifted Children Programme: Milestones

Following are the major milestones of the Programme since its inception:

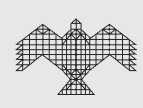
- An India based protocol to identify gifted children in mainstream schools was developed
- As part of the identification protocol, Teachers Training Manual to train teachers to identify and support gifted children was developed. Variations of the material are used to train parents, school management, and trainers. The manual is available in English and Kannada.

- Mentoring support for gifted children, parents, teachers and schools were developed and provided. Additionally, counselling services and resources for the gifted are part of the mentoring support. Currently, 70 gifted children are identified and mentored through the programme.
- To increase the outreach **May I Help You Centre** for the Gifted Children is hosted on the website: [www. Prodigy.net.in](http://www.Prodigy.net.in)
- Collaborations with government departments and private school foundations to provide support for the gifted children are developed. **Gifted education is introduced into the revised D.Ed. curriculum of Karnataka for the first time.**

The Way Forward

The Gifted Children Programme is aiming at the following:

- Develop a robust multi-level, multi-stage model for identifying and mentoring the gifted children of diverse India.
- Develop a Gifted education centre for India that provides services for the gifted based on Research and Development.



Education Programme Recent Publications

Kurup, A. (2017). Gender Science and Technology Education In Sumi Krishna and Gita Chadha (ed). *Feminists and Science : Critiques and Changing Perspectives in India*. New Delhi: Sage Stree Publications. 278-298.

Binoy V. V., Radhakrishna S. and Kurup A. (2017). Bridging Educational Institutions for a Citizen Science Project: A Case Study from Malappuram District, Kerala, India. In Bagla P. and Binoy V. V. (ed.), *When Science Meet Public: Bridging the Gap*. New Delhi: Springer Publication. Pp.269-277.

Dixit, S. and Rout.B.C. (2017). Writing History: Truth and Ideology. *The New Leam*. (3) 22 – 23

Kurup, A. & Dixit, S. (in press). Gifted with Disabilities: The Twice-Exceptional in India. *Indian Educational Review*

Dixit, S (2016). Understanding of History among Tribal and Nontribal Children and Adults. *International Education and Research Journal*. 2 (10) 30-33

Kurup, A. (2016). Impact of Science and Technology on Women. *Yojana*, 68-71.

Kapur, M. (2016). *Psychological Perspectives on Childcare in Indian Indigenous Health Systems*. New Delhi: Springer India.

Singai, C, et.al. (2016) Knowledge Economy and Demographic Change: Comparative Case Study of Europe and South Asia. In *Adult Education and Lifelong Learning in Europe and Beyon, Germany: Deutsche National bibliothek*.

Ramaprasad, A., Singai, C., Hasan, T., Thant, S., & Thirumalai, M. (2016). India's National Higher Education Policy Recommendations since Independence: An Ontological Analysis. *Journal of Educational Planning and Administration*, 30(1), 5–24.

Doyle, L., Egetenmeyer, R., Singai, C., & Devi, U. (2016). Professionalisation as development and as regulation: Adult education in Germany, the United Kingdom and India, *International Review of Education*. 1-25.

Salam, J (2016). The Idea of Indianness, New Delhi: *The New Leam*, 2(13), 46-48.

Salam, J. (2016). Insurgency and Everyday Violence in Northeast India: The Education Challenge, New Delhi: *The New Leam* , 2 (1), 5-8.

Kurup, A. (2015). Will Mentoring Bridge the Gender Gap In Indian Science? *La Physique Au Canada*, 71 (2).



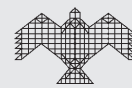
recent times. The project seeks to weave together a rich tapestry that attends to institutional diversity and generational transitions, one that meticulously documents women's challenges and pleasures in doing research.

Emerging Concerns in Vocational and Higher Education in India

Currently, India is among the countries with the lowest proportion of trained, skilled youth in the world, despite, it's glaring opportunities in terms of demographic dividend. Emerging concerns in vocational and higher education is an important area that the education programme is currently attempting to make in roads into.

NIAS conducted a two day National Consultative Meet to mainly discuss VET and skill education by paying attention to the overall canvas of VET and skill education taking place at national scenario and specific state level concerns such as Karnataka and the Northeastern states. The Consultative Meet provided valuable resources on crucial issues for policy intervention.

As a first step, NIAS is undertaking a research project that examines the entry and career trajectories of diploma/ITI trained in Karnataka.



The research study attempts to understand the skill gaps between the training institutions and the industry requirement. In other words, the study will map the skills to the current employment opportunities of these diploma/ITI trained professionals and trace their career growth with the fast changing employment market.

Moving forward, after identifying large manufacture industries in the state of Karnataka, Education Programme, NIAS has begun working in the field. Broadly looking at the interface between vocational and higher education, the current field study focuses on the aspirations, motivations of vocational graduate employees and their institutional/training background. Apart from understanding motivations and aspirational gaps, the study would shed insights on how vocational trained graduates and diploma holders feed into the existing industries for follow up policy intervention and initiatives. The first field engagement began at BHEL where interaction with sixty employees including draughtsman and supervisors has been completed. The study employs both qualitative and quantitative methods. The sample data constitutes of representative population

Education Programme

Recent Publications

Roy, P., & Kurup, A. (2015). A critical Assessment of Gifted Education in India, In David Yun Dai and ChingChihKuo(eds.), *Gifted Education in Asia: Problems and Prospects*. Charlotte NC: Information Age Publishing, INC.

P. Shastri, Kurup, A., L. Resmi, R. Ramaswamy, S. Ubale , S. Bagchi, S. Rao & S. Narasimhan (2015). Towards Gender Equity in Physics in India: Initiatives, Investigations and Questions. *India Country Paper*. ICWIP, Waterloo Canada.

Kurup, A.,Chandra, A.,& V.V. Binoy. (2015). Little Minds Dreaming Big Science: Are We Promoting Children Gifted in STEM in India? *Current Science*.108(5).

Tukdeo, S. (2015). Literacies and Power: Looking for Adivasi Voice in Education. In Ramya Subrahmanian and Preet Rastogi (Eds.) *India's Children: Essays in Social Policy*. New Delhi: Oxford University Press.

Tukdeo, S. (2015).Teacher Education in India, In Daniel Ness and Chia-Ling-Lin (Eds), *International Education: An Encyclopedia of Contemporary Issues and Systems*.

Tukdeo, S. (2015) Class Divided: Global Pressures, Domestic Pulls and a Fractured Education Policy. *Policy Futures in Education*, 13 (2): 205-218.

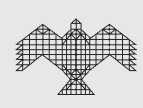
Tukdeo, S.,& Babu, S. (2015). Teachers' Work and Teachable Moments in the New Regime. *Economic and Political Weekly*12.

Rout, B.,& Watts, M. (2015).Capabilities of Affirmative Action Students in Higher Education: Evidences from an Indian University. *Journal of Educational Planning and Administration*, New Delhi, XXIX (4).

Radhakrishna, S., Binoy, V. V., & Kurup, A. (2014). The culture of environmental education: insights from a citizen science experiment in India. *Current Science*, 107(6), 576-178.

Tukdeo, S. (2014). The Not-so-Hidden Power of Mobility and Education: Indian Diaspora, Knowledge Industries and the Development Imperatives. *Journal of Diaspora Studies*, 7(1): 56- 70.





Education Programme in Action



Identifying gifted children in rural Karnataka



Ashram school, Jawhar, Palghar district, Maharashtra



Women in STEM: National Consultative Meeting

Major Training Programmes

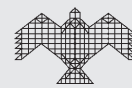
The Education Programme organised a series of training programmes as a part of its research activities.

Some of them include:

- NIAS Orientation Course on an Integrated Approach to Knowledge and Information for University and College Teachers
- First NIAS-GEAR Workshop on Identification of Gifted Children in Science and Mathematics for School Teachers
- International Training Programme on Leadership and Career Development for Women Scientists and Technologists
- NIAS-DST Training Programme for Women Scientists on Science for Progress in India: Innovations in Technologies
- Consultative Workshop on Future of Education: The Schools of the Future
- Course under the ISHAN VIKAS-UDHAN Programme for School Children

“With Reaching the un-reached as its driving spirit, the NIAS Education Programme works towards making Education for all as a non-negotiable aspiration of free India. Even after seven decades of independence, free education remains unfulfilled due to resource constraints and unique geographical constraints of rural India leaving a section of the population un-reached by the formal educational system. NIAS Education Programme strives to reach them and also those children with learning disabilities and with unusual learning capabilities”

- VS Ramamurthy



NIAS Education Programme

NIAS MAIYA Prodigy Programme

The National Programme on Gifted Education, PRODIGY – Promoting and Developing India's Gifted Young is anchored at NIAS under the stewardship of Prof Anitha Kurup, Dean and Professor at the National Institute of Advanced Studies. The Gifted Education Programme is a national initiative of the Office of the Principal Scientific Advisor to Government of India. The programme was initiated in 2010 by Prof R Chidambaram and continues to focus on identification and mentoring gifted children in the age group of 3-18 years.

The programme is guided by stalwarts like Prof Baldev Raj, (Director, National Institute of Advanced Studies), Prof VS Ramamurthy (Emeritus Professor, NIAS), Prof S Mohan (Emeritus Professor, Indian Institute of Science) and Prof SS Iyengar (Ryder Professor, Florida International University) and Prof AH Rama Rao, President, National College, Bengaluru, among others. The Gifted Education Programme has established collaborations with the Indian Institute of Science, Silver Oaks International school, Bengaluru and Hyderabad, Vidyashilp Academy, Bengaluru, Idea lab, Visveswaraya Museum among other institutions.

From 2010 NIAS Gifted Education Programme has made important strides in terms of devising mechanisms for identifying and mentoring gifted children, sensitizing teachers and parents regarding gifted children. In our journey towards expanding the efforts, NIAS has been exploring ways to create an international platform. With this perspective, NIAS MAIYA PRODIGY FELLOWSHIP PROGRAMME, an important collaboration with Iyengar foundation and National College Basavangudi was launched on the 6th January, 2017 at the JRD Tata Auditorium, NIAS, IISc Campus.

The programme aims to identify talent at grades X and XII and embark on an active mentoring initiative to accelerate youth achievement in promoting the development of India's Gifted Young. The programme offered fellowships (Rs.50, 000/-) to the identified individual and links them to an active mentoring programme.

The inauguration of the launch of the talent Search and Mentoring Program was done by Bharat Ratna CNR Rao. Other dignitaries who were present during the launch were Prof Baldev Raj, Prof SS Iyengar, Prof Anitha Kurup, Dr AH Rama Rao, Dr AS Kiran Kumar and Dr P Sadananda Maiya.

In the presence of

Dr. A S Kiran Kumar
Chairman, ISRO

Dr. Baldev Raj
Director, NIAS

Dr. S S Iyengar

Director, FIITJEE

Dr. A H Rama Rao
Chairman, NCA

Dr. P S

Dr.

Dr.



NIAS MAIYA PRODIGY FELLOWSHIP

Mentoring to Accelerate Individual Youth Achievement
6th January 2017, JRD Tata Auditorium, NIAS, IISc Campus, Bangalore 560012



Initiative of NIAS Prodigy Program, National College and Iyengar Foundation
Launch of Talent Search Program, Mentoring and Fellowship Awards



Dr. A H Rama Rao

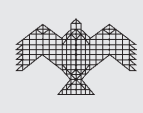
Dr Baldev Raj

Bharat Ratna CNR Rao

Dr. S S Iyengar FIITJEE, USA

Dr Kiran Kumar
ISRO, Chairman

Dr Anitha Kurup



NIAS Education Programme

Future of Education: Schools of the Future

Supported by Tata Consultancy Services and
Karnataka Jnana Aayoga

29 July, 2015

A consultative workshop on the Future of Education, with a focus on the school sector, was undertaken by NIAS, as part of a global foresight series titled Future Agenda. It was the 6th workshop on Education, in a global series of 100 workshops on 21 different themes, conducted across 50 countries across 5 continents. The top 100 insights from 2015 will be disseminated to Future Agenda hosts, partners and collaborators, who will in turn use them to create their own thought pieces and organisational strategies.

The workshop took place in the context of tectonic changes in the education sector – brought about by the huge increase in numbers of children entering the school system, the possibilities and trends brought about by changing pedagogies including the impact of technology, the changing aspirations of parents and students and the global competitive pressures on the knowledge economy. The workshop aimed at enabling a multi-stakeholder dialogue, with the objective of visualising the schools of the future and the possible direction of change. Reaping the ‘demographic dividend’ requires concerted action, based on planning and foresight.

The workshop drew over 100 participants from across the country of a diverse set of stakeholders. The workshop was attended by Policy-makers, Non-profit entities engaged in the education sector, Technology providers, Corporates engaged with the sector, Psychologists and Researchers, Educators (Teachers), Educationists (Education experts) and Educational Institution Management representatives. Care was taken in bringing together a set of participants with wide and sufficiently diverse experiences. The workshop was planned so as to assure representation from key stakeholder groups.

Further, the workshop was addressed by eminent persons with a track record of national and global

service in the public and private sectors, and wide-ranging engagement with the education sector, via keynote speeches and discussions.

The broad themes that were discussed in the workshop were:

1. Key National Challenges
2. Role of Technology & New Teaching-Learning Practices
3. Changing Roles of Teachers & Students.
4. Evolving Student Aspirations
5. Working with Diversity
6. Going beyond Knowledge & Skills – into Values & Ethics

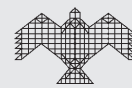
The Workshop Report as well as the Recommendations made are drawn from the rich material that was covered in the inaugural and valedictory plenaries, as well as the day-long exercise of focus group discussions on the thematic areas listed above.

Recommendations

The workshop has resulted in 35 recommendations, which have been classified as below, reflecting some of the recurrent powerful themes that attended upon the discussions:

- Building a Cadre of Teachers & Enhancing Teacher Status
- Reforming the Examination System
- Establishing National Quality Standards
- Making Indian Students Internationally Competitive
- Empowering & Promoting Innovation in Schools
- Replicating Successes
- Education Planning & Public Policy Measures

Access the full report at
<http://eprints.nias.res.in/942/>



NIAS Education Programme

Faculty



Anitha Kurup is Dean, Professor and Head of the Education Programme. Her research interests span the broad disciplines of education and gender studies. She is also leading the National Gifted Education Program in India. As part of the Gifted Education research, she has developed an Indian based identification protocol to identify the gifted children in the age group 3-18 years.



Shivali Tukdeo is an Associate Professor. Her scholarly engagements are rooted in education policy, critical social theory and sociology of education among others. Her research

interests include sociology of education, global studies in education and gender studies.



Shalini Dixit is currently an Assistant Professor in the education programme. Her research interest lies in understanding the Cultural and Cognitive Processes in

appreciation of History, Critical aspects Educational Psychology, Cultural Processes, Social Psychology, Gender Issues with Social Psychological perspective, and Rogerian approach to Personality and Communications etc.



Jeebanlata Salam is an Assistant Professor. Her main research interest includes Sociology of Education, Social Exclusion, Education Policies, and Vocational & Skill Education, Studies in Ethnicity, Conflict, Violence etc.



Malavika Kapur is a Visiting Professor in the Education Programme. Her research interests lies in the areas of child psychology. Currently she is working on an

action research on understanding the play based strategies in the promotion of psycho social development of school children.



Leya Matthew
Post Doctoral Fellow



Bharat Chandra Rout
Post Doctoral Fellow

Research Associates & Scholars



Chetan B Singai



Ajai Chandra



Anupama Mahajan



Ashwini Gowda



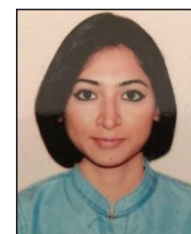
Savitha Suresh Babu



Samhita



Subroto Dey



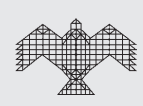
Mrinmayee Mandal



Surbhi Arora

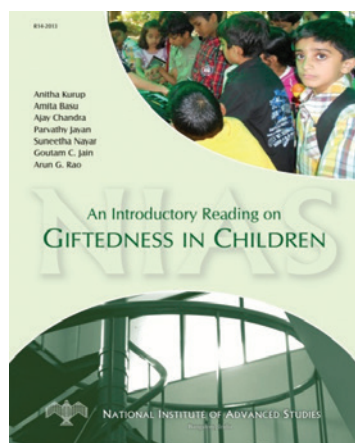


Shivangi Singh



Education Programme

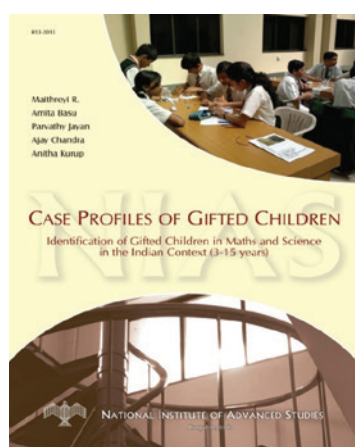
NIAS Publications



An Introductory Reading on Giftedness in Children

NIAS Report- R14-2013

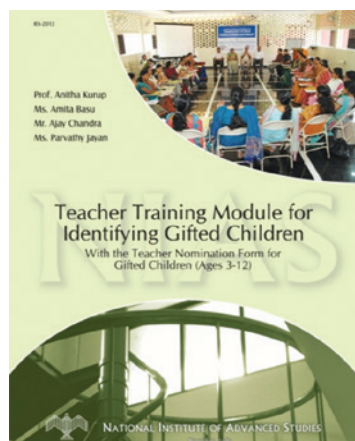
The Introductory reading on giftedness in children is a compilation of research understanding on the notions of giftedness. The report attempts to challenge the limited definitions of giftedness and argues out the importance of a more concerted programme of gifted education in India. The report depicts and reviews the current research on important concepts in countries with well established gifted education programmes and discusses their relevance to the Indian context.



Case Profiles of Gifted Children: Identification of Gifted Children in Maths and Science in the Indian Context (3-15 years)

NIAS Report- R13-2013

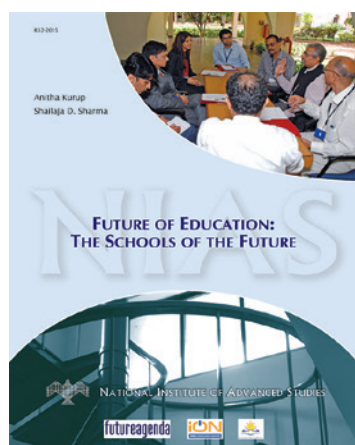
The report presents a selection of case profiles undertaken by the NIAS Gifted Education Project in an attempt to understand the nature of giftedness in India and at the time the report also represents the challenges faced by gifted children in a country where there is an absence of integrated gifted education programme. The report attempts to project the paintings of a gifted child's life and attempts to unpack how social, emotional and cognitive developments factor in a gifted child's pursuit while reaching its optimal potentials.

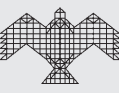


Teacher Training module for Identifying Gifted Children

RX- 2013

The teacher training module for identifying gifted children is a handy tool which aims to sensitize and introduce the concept of gifted children for teachers and educators. It presents detailed information on understanding giftedness, myths and misconceptions about giftedness, issues related to identification and classroom management strategies etc. The Training manual also equips the teachers to use a Teacher Nomination Behavioral Rating Scale (TNBRS), which aids in observing and nominating gifted and talented children from their class rooms. The teacher Training Module for identifying is available both in English and Kannada languages.





Special Focus

NIAS Training Programmes

During the first quarter in 2017, the Institute organised more than four major training programmes including the NIAS flagship one week programme for Senior Executives. Besides, the Institute organised three workshops for the Scientists as a part of NIAS-DST training programmes.

NIAS Training Programmes are a part of the Institute's primary focus; they aim to fulfil one of the Institute's founding goals to build capacity and help the country in nurturing leadership.

31st NIAS Annual Programme for Senior Executives

The 31st NIAS Annual Programme for Senior Executives was held from January 16 to 21, 2017. The theme of the programme was *Be a Transformational Leader*.

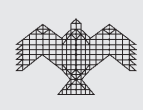
The programme hosted thirty participants including senior executives from various government organisations as well as from private industries. The programme included lectures and discussions on a gamut of subjects.

Dr K Kasturirangan, Former Chairman, ISRO and MP (Rajya Sabha); Chairman, Karnataka Jnana Aayoga set the tone of the programme with his inspiring inaugural address. The intense sessions were addressed by well-known personalities including Mr B Muthuraman, Mr Anil Swarup, Mr K Venkataramanan, Vice Admiral RN Ganesh, Prof Vijayalakshmi Ravindranath, Mr Krishna Byre Gowda, Ambassador Nalin Surie, Dr Ajit V Sapre, Ms Revathy Ashok, Justice RV Raveendran and Prof Manas K Mandal all of whom brought in their valuable experience and learnings into the discussions.

As a part of the programme, there were a series of evening public lectures by leading lights such as Mr Suresh Prabhu, Dr Arun Shourie and Mr Chandra Bhushan. These lectures were extremely well received by the participants as well as by the citizens of Bengaluru. A highlight of the programme this year was the Dance Recital by the Nrityagram Ensemble.

Mr Ricky Kej, an internationally renowned Indian Music Composer, Producer and Conservationist, weaved the magic of music into his public lecture. The valedictory address was given by Dr Soumya Swaminathan, Secretary, Department of Health Research and Director General, Indian Council of Medical Research.

The programme was coordinated by Prof R Srikanth, Dr Nithin Nagaraj, Prof D Suba Chandran and Ms V Girija.



31st NIAS Senior Executives Programme

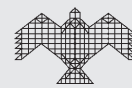
Science Policy and General Management *NIAS-DST Training Programme*

The two-weeks NIAS-DST Training Programme on Science Policy and General Management was held from February 6 to 17, 2017 and emphasised the development of leadership qualities through the integration of multidisciplinary knowledge that brings together understanding from natural sciences, engineering, social sciences and the humanities to solve problems concerning economic development and national security. This year's core theme was Energy Security and Sustainable Development and focused on integrating analytical skills with out-of-the-box thinking to understand and find solutions for challenging technical and managerial problems within organizational context. The programme was inaugurated by Prof SP Sukhatme and concluded with a valedictory address by Prof Roddam Narasimha.

Two public lectures by Ambassador PS Raghavan and Prof PS Goel were conducted.

Other lectures were delivered by eminent scientists, technologists, academic scholars, and professionals from the public and private sectors. This course is part of enhancing institutional capacity building and conducted with the NIAS tradition of excellence with relevance. Participants also benefited from networking opportunities with experts from other fields and government organisations and distinguished speakers during the training programme. In addition to the lectures, participants had a cultural outing during the weekend to Shravana Belagola, Belur, and Halibedu and were treated to a musical concert by Vidwan Shri D Balakrishna. The programme was coordinated by Dr TS Gopi Rethinaraj, Dr VV Binoy and Ms JN Sandhya.





Science for Progress in India: Focus on Sustainability

NIAS-DST Training Programme

The week-long training programme on Science for Progress in India: Focus on Sustainability was held from February 27 to March 3, 2017. As part of the initiative 'DISHA Programme for Women in Science' by the Department of Science and Technology, NIAS organised the training programme for mid-



career women scientists and technologists from various institutions. Being central to the enterprise of research, policy and advocacy, the theme of sustainability provided an excellent entry into the week-long discussions.

The programme brought together scientists, social scientists, philosophers, artists and innovators to share their work with the participants. In line with the NIAS ethos of multidisciplinary engagement and focus on questions of contemporary relevance, the talks exhibited diverse voices and expertise. Prof Ashok Mishra, former Director of Indian Institute of Technology Mumbai delivered the inaugural address. Prof Kartik Shanker, Director, Ashoka Trust for Research in Environment and Ecology (ATREE) delivered the valedictory address. Two sessions were devoted to professional development and opportunities for career growth in institutional contexts.

Additionally, the programme featured a theatre workshop conducted by Ms Radha Ramaswamy and a musical performance by Ms Shabnam Virmani.

The programme was coordinated by Dr Shivali Tukdeo, Dr Shalini Dixit and Ms S Lalitha.

Science, Technology and Innovation Policy

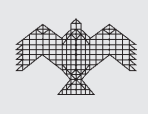
NIAS-DST Training Programme

NIAS-DST Training Programme on Science, Technology and Innovation Policy was organised during March 13 and 24, 2017. The inaugural address was delivered by Dr AS Kiran Kumar, Chairman, ISRO and Secretary, DOS and the valedictory address was given by Dr T Ramasami, former Secretary, DST. Public lectures by Dr AS Pillai and Mr Balan Nambiar was arranged. Other eminent speakers included Dr KB Akhilesh, Dr G Jagadeesh, Ambassador TP Sreenivasan, Dr Mueller, Dr Dominic McAllister, Dr HP Khincha, Mr Pallav Bagla, Dr Rudra Pratap, Mr VVR Sastry, Dr S Ayyappan, Dr S Dasappa, Dr N Ramamoorthy, Dr AK Chakraborti, Dr M Annadurai, Dr Amitav Mallik, Dr PP Majumdar, Dr Kumar Sivarajan, Dr Subbaiah Arunachalam and Dr Rasik Ravindra.

As part of the programme, an industrial visit to Master Control Facility (ISRO), Hassan and a Hindustani Classical Vocal Concert by Pandit Parameshwar Hegde and his team was also organised.

The programme was coordinated by Prof V Bhujanga Rao, Dr Nithin Nagaraj and Mr KS Rama Krishna.





NIAS

Research Programme Updates

International Strategic and Security Studies Programme



Rajaram Nagappa

Approval has been received from DRDO HQ for the study project “Towards Better Understanding the Perception and Socio-Cultural and Economic Profile of Border People in Tawang Tract”. The project funding is about Rs.40 lakhs.

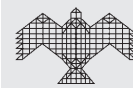
Discussion meeting with Dr Charles Ferguson, President, Federation of American Scientists on March 8, 2017. The topic of discussion was Strategic Missile Defence.

NIAS-UNDP Policy Research Initiative on Inequality and Human Development



Narendar Pani

The NIAS-UNDP Policy Research Initiative on Inequality and Human Development aims to study two specific consequences of inequality that are being felt in India but have not had adequate academically strengthened policy attention. The first project is on ‘Inequality and farmers’ suicides’, while the second is on ‘Inequalities and the demand for non-farm occupations’. These projects are based on multidisciplinary and empirically consistent conceptualization of inequality the framework for which involves merging Amartya Sen’s version of the capabilities approach with a proximity principle derived from the writings of MK Gandhi. Such a conceptualization helps capture human capabilities



as a part of a dynamic process. Being a part of a continuously changing process, inequality has to be understood in terms of its specific context. This context in turn is both a result of the process that generates it as well as the situation from which the consequences of inequality could emerge. In this regard, present day India is undergoing transition from an agrarian economy to a non-agrarian one without an equal pace in the movement out of agriculture. The effort thus involves first understanding the nature of this transition and then looking at some of its possible consequences, including farmers' suicides.

Two review workshops were conducted on February 7 and 8, 2017 at NIAS. These workshops had been committed in the proposals to the Tata Consultancy Services which has funded the two projects for the Initiative. The workshops were designed to review the work done so far and the proposed future directions for the Policy Research Initiative. Senior academics across multiple disciplines were invited for reviewing the programme over the two-day period. The external academics who attended the workshops were Prof CT Kurien, former chairman of Madras Institute of Development Studies, Chennai; Prof Ramila Bisht, Centre for Community Health, Jawaharlal Nehru University, Delhi; Prof Suraj Jacob, Azim Premji University, Bengaluru; Prof Anand Kumar, Indian Institute of Advanced Studies, Shimla; and Prof Srijit Mishra, Director, Nabakrushna Choudhury Centre for Development Studies, Bhubaneswar. In order to make the best use of the intellectual capital available at the workshop the presentations were designed to generate a discussion not just on the specific projects but also on the conceptual approach to inequality that has been adopted by the NIAS-UNDP Policy Research Initiative on Inequality and Human Development. The two workshops received a positive feedback on the content, goals and methodology used in the Initiative, even as the experts provided a range of constructive suggestions on the way forward.

This transition process across all districts in India has been mapped and the differences between the locational dimension of emerging demand for jobs and skills highlighted in a working paper titled "Locational Mismatch between the Demand for Jobs

and the Demand for Skills in India" by Dr Sumedha Bajar. This work has thrown up different patterns of transition underway in the country and each having its impact on inequality. To study the inequalities generated from the process of transition, quantitative survey has started in 8 states (in 23 districts and 57 villages) across 8400 households. In view of the increasing intensity of marginal work in certain parts of the country, qualitative fieldwork is in progress in a village with almost 100 per cent marginal workers in Uttar Pradesh. One of the possible consequences of the transition process in India are farmer suicides and efforts are underway in building a macroeconomic picture of the causes of farmer suicides by using Durkheim's model of suicides.

Focusing specifically on the health consequences of inequality, Dr Abha Rao delivered NIAS Wednesday Discussion Seminars – Health Inequalities in the Indian Context – which looked at the interplay between economic, socio cultural and structural inequalities on health in India.

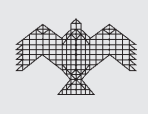
RBI Programme on Interdisciplinary Approaches to Economic Issues



Narendar Pani

The RBI programme uses concepts and methods from other social sciences to provide a more inclusive view of economic issues. As a part of the programme, we have now embarked on two new projects aimed at assessing the Demand-side of Financial Inclusion with a specific focus on rural Karnataka. These projects have been fully supported by Vijaya Bank with a budget of Rs.62 lakhs. As a part of these, in-depth quantitative and qualitative studies in 19 districts in Karnataka across 73 villages are currently underway.

Conjectures based on our initial observations from the field in the Financial Inclusion projects



were presented at the NIAS-UNDP workshop. In particular, this presentation aimed at assessing the relationship between uncertainty and informality. Using an algebraic model of Rotating Savings and Credit Associations (popularly known as Chitties in South India), we showed how the preference for the informal stems not just from socio-economic factors alone, but is rather backed by a sound economic rationale. It was further discussed how the increase in uncertainty during the post-liberalization period coupled with the inadequacy of social security nets has strongly resulted in a preference for the informal.

Soundarya Iyer's paper titled 'Circular Migration and Localized Urbanization in Rural India' appeared in *Environment and Urbanization Asia*, a Sage publications journal. Using the example of a dry land village in northeastern Karnataka, the paper makes a case for studying the source of migration and the role that circular migration plays in processes of urbanisation at the source of migration. She also presented the same at the conference 'The Urban Arc 2017: The City in Transition' in the panel on Relating Migration to Current and Future Urbanisation at IIHS, Bengaluru in January 2017.

N S Nalini's paper 'The Great Divide: Exploring the divergence between urban metabolism in theory and practice in water supply system in Bengaluru' appeared in the *International Journal of Urban Sustainable Development*, a Taylor and Francis online journal. In the paper she assesses the spatial inconsistencies between planning and urban metabolism, by means of the water supply system of Bengaluru city.

Urban and Mobility Studies Programme



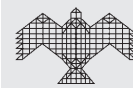
Carol Upadhya

A new research project was initiated in January: Speculative Urbanism: Land, Livelihoods, and Finance

Capital. It is a three-year collaborative project with University of Minnesota and UCLA: Comparative study of transformations in land use, livelihoods and urban environment in Bangalore and Jakarta, funded by the National Science Foundation (NSF), USA. Kaveri Medappa joined the project as Senior Research Fellow.

A new research project-India's Changing Cityscapes: Work, Migration and Livelihoods has been approved. The project is in collaboration with the Institute for Social and Economic Change (ISEC), Bengaluru and is funded by the Indian Council of Social Science Research (ICSSR). NIAS has signed an MOU with ISEC for implementation of the programme, which will begin in March 2017. The programme will study the circuits and conditions of migrant labour in the construction industry and service sector in Karnataka cities.

To mark the birth centenary of MN Srinivas ('MNS'), one of the main founders of Indian sociology, the School of Social Sciences organised a two-day National Seminar on the theme 'Nation, Community, and Citizenship in Contemporary India' on January 9 and 10, 2017. The seminar was supported by the Indian Council of Social Science Research (ICSSR) and the Pratiksha Trust. The seminar brought together mostly young scholars from across the country to present their original research on recent developments in India's political landscape, which has been marked by the crystallisation of 'communities' of diverse kinds – from caste-based mobilisations to contestations around religious identities and struggles for regional autonomy. The participants revisited the sociology of MN Srinivas and debated its contributions to our understanding of the nation at the present juncture. The keynote address was delivered by Prof Sujata Patel (University of Hyderabad), President of the Indian Sociological Society. On January 9, 2017, a panel discussion was arranged as an evening public event on the theme 'MN Srinivas as Public Intellectual'.



Water Programme



N Shantha Mohan

The thrust areas of the Water Programme are drinking water; water sharing and disputes, alternatives and sustainable solutions. Currently we are engaged with a DST funded pan-India project on “Social technological solutions for major water challenges facing India” adopting multi/inter-disciplinary, multi-stakeholder and holistic approaches to address issues in the water sector, with a focus on evolving social and technical solutions to major drinking water challenges in the country. Local specific and prioritized issues have been selected to be addresses by the seven sub-projects in various zones with the help of the Zonal Water partnership which was developed by the Water Programme. Each of the sub-projects has reached an advanced stage of progress. The findings will be interpreted and disseminated among the diverse stakeholders. Our recent publication is: Parween, M, Ramanathan, A and Raju, NJ. Waste water management and water quality of river Yamuna in the megacity of Delhi. *Int. J. Environ. Sci. Technol* (2017). Doi: 10.1007/s13762-017-1280-8.

Heritage Programme



Sharada Srinivasan

The Heritage, Science and Society Programme has been contributed to some important national level public outreach exhibitions in the past several months which have brought several facets of heritage to a wider audience.

NIAS partnered with the Indira Gandhi National

Centre for Arts, in a major international conference of the International Council of Museums (ICOM), “Metals 2016” on the conservation of metallic heritage held during 26-30 September 2016 at IGNCA, New Delhi. The conference was attended by 100 international delegates and was inaugurated by Member Secretary IGNCA, and DG-ASI.

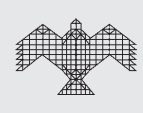
A public exhibition of Indian Metal Crafts Demonstrations was co-curated by Prof Sharada Srinivasan, Head, NIAS HSS Programme, who also



gave a Keynote address with live demonstrations by metals craftspeople from different parts of India. In one area, one could see traditional Sthapatis or icon makers from Swamimalai building their furnaces and casting a representative Hindu religious bronze at the venue, while in another area, a Muslim artisan in skullcap from Moradabad could be seen shaping metal vases. Also at the venue were the Tatheras of Jandial Guru, who have been listed on UNESCO's Intangible Heritage list and metal mirror makers from Aranmula.

The NIAS Heritage, Science and Society Programme also had a hand in the high-profile art event of 2016, the Student Biennale coinciding with the Kochi Muziris Biennale, co-curated by Sumitra Sundar, which had exhibits related to labour in metalcrafts such as by the Kumbakonam Arts College.





PhD Programme



TS Gopi Rethinaraj

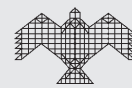
The Institute's PhD Programme offered various courses for students and research associates in the second semester of the 2016-17 academic year, which runs from January to April 2017. This includes the Research Methodology course, which provides a broad orientation to the research methods and approaches of different disciplines, and various elective courses to meet specific needs of students.

Prof Andrew Thorpe, Pro-Vice-Chancellor, Executive Dean (Humanities) and Professor of Modern British History at the University of Exeter and Professor Cathy Turner, Associate Professor in Theatre and Performance, visited NIAS and interacted with PhD students on January 11, 2017.

Mr Sashi Kiran C, Mr Vijay CS, Mr Shyam Hari P and Ms Meera Sudhakar defended their thesis proposals

at NIAS and will complete the formal university registration shortly before commencing their field research. Advertisements inviting PhD applications for the term beginning in August 2017 are out and a surge in the number of applications is anticipated because of the increased flexibility in admitting candidates with and without financial support. NIAS will conduct a national entrance exam on June 19, 2017 for the shortlisted candidates and final selection will be based on two intensive rounds of personal interviews.

Ms Nimisha Agarwal, a fifth year PhD student has been selected for attending a workshop and presenting a paper at Brown University International Advanced Research Institutes (BIARI) in June 2017. She will present a paper titled "Climate Change and Its Impacts: Connecting Local Variability and Knowledge in a Global System" The BIARI workshop annually selects a small group of early career researchers from around the world to address pressing global issues through collaboration across academic, professional, and geographic boundaries. NIAS congratulates Ms Agarwal (who works under the supervision of Prof Anindya Sinha) on her achievement.



Special Focus

Unsung Heroes

Our Constant Gardeners

This section – Unsung Heroes, is a new series looking at those who are not a part of the regular teaching faculty at the NIAS, but whose contribution to the Institute’s progress is no less.

Those who enter the NIAS campus for the first time get mesmerized by its beautiful campus especially the cheerful green trees, colourful plants and the ever smiling flowers. They fall in love with the campus immediately, and those who are already bewitched by NIAS flora never miss a beat to experience its beauty, take a picture and walk past them slowly.

True, the nature is beauty; but in NIAS it is nurtured by an excellent inhouse team. The April issue has an interaction with Mr Krishnappa, who leads the NIAS garden team. The gardening team includes Mr R Krishna aka Krishnappa, Mr Anjaneyalu, Mr R Harish, Mr Rudrappa and Mr Venkatesh.

The Institute is grateful to Maj Gen MK Paul, then the Controller of NIAS, who was the moving spirit behind the landscaping of the Institute. It was his tireless efforts that converted a land with shrubs and trees into a beautiful garden that NIAS has today. Gen Paul was largely responsible for carefully choosing the plants and planting them, which have become full blown trees today.

Mr Krishnappa is the garden supervisor at NIAS. He and his excellent hard working team undoubtedly is one of our pride. Not only by the faculty and scholars, but by everyone who passes through the Institute admires the work of him and his team.

For many within the NIAS, walking around the garden is a favorite pass time. Following is an excerpt of the interaction with Mr Krishnappa by a small team of NIAS members. Mr Krishnappa joined the NIAS as a regular since 2009; before that he was working on part time basis.

Mr Krishnappa, can you kindly share your NIAS experience?

I took training in the IISc. The supervisor there trained me. In 1991, I came to NIAS as a part timer.

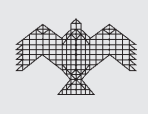
At that time, I used to work at the house of a former Chief Minister for the rest of the time.

I came to NIAS during the time of Dr Raja Ramanna. I was one among the 30 members who had come for the interview and the second person to be selected for the job. After that, there was no looking back. It has been a long journey with the NIAS.

Today, NIAS is a part of my family. I have been continuously encouraged by everyone around. Even a small appreciation act as a source of inspiration to make the garden even more beautiful.

Visitors, Students, Professors and the Director constantly encourage and appreciate the work. And that brings enormous satisfaction. Hopefully, I should continue to work for more years.





How did you get interested in gardening? Where do you get your inspiration in this field? And what about your family members?

My wife is also a gardener. She has three more years to retire. She works with the State government. We have a house in Tata Nagar.

Since I devote my most of the time here at the NIAS, I have not done any gardening in my house. My son is in technical field. My daughters are married.

How challenging is gardening? Have you felt it boring anytime?

Gardening is not hard. It just needs patience and proper methods. I started gardening in 1970s. It has become part of my daily activities now. It is not just a job for me. I see it as my passion. When you do something with passion, you will never find it boring.

The sowing to watering process varies for different plants. It is similar to taking care of kids during their neonatal stage. It cannot be hard for parents but yes it is challenging.

What is unique about our NIAS garden?

There are varieties of plants and trees you can find. There is Christmas tree to welcome you, Banyan tree that spreads the history and even the minute vibrant flowers which make the place more special. Our garden also provides mango for the pickles and coconuts for the soups that the kitchen makes.

There are jackfruit trees and banana plants in the backyard.

In June, banana plants will be producing its fruits. A sweet tamarind seed was recently sowed. If things go well, in 3-4 years we will have a small tree.

Anybody who takes a walk around will definitely find colorful butterflies and cool breeze. Our garden is beautiful and relaxing. Our hard work every day has added more beauty to this place.

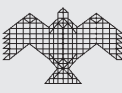
We are resourceful and make manure out of the waste as well. Not many know about the compost and rainwater harvesting methods we use. Since we use our own compost it is more immune to disease. Except for eucalyptus leaves which are not suitable for manure all others waste are recycled. We also have a pond in the garden. You can see the lilies and the fishes inside. Sundays after watering the plants, we clean the pond.

Within the NIAS garden, which place is your favorite?

As my favorite place is concerned, I don't have anything in particular. But when I finish watering the plants I go sit in the verandah or the green house. I find these places relaxing since I get an overview of the whole of the garden.

What about those plants and places that do not yield well in spite of your hard work? Has any such instances troubled you?





There is no such place. And no such tree. It is the care and caution you take while planting, that makes the difference. I certainly agree that the results varied but there were no disappointments. One instance I can recall is the tree in the parking space. The tree's roots are long dead and hence I was advised to plant another tree there. And today you can see a young plant next to the dead tree.



For a long and better results, soil has to be grooved sufficiently to accommodate the roots. The manure and water have to be properly supplied. While shifting the plants in pots to the open space you need to be extra careful. It may be disastrous if not done with caution. In case of banyan tree this incident occurred. If the branches are cut and planted in soil, it grows as a different tree. And while shifting, one has to be extra careful. If it is damaged you cannot expect good results. But there is fruit to every hard work.

Tell us the stories behind these trees and plants. And which are the oldest ones?

Most of the plants and trees are not native. If I find any unique variety I bring and plant them. And these Christmas trees are not brought with money, they

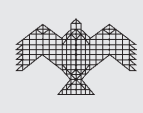


are one of such collections. It has been 20 long years and yet they stand firm. And it is green throughout the year. Among these the oldest tree is the Banyan Tree which is 25 years old now. Once when Tata sir had come, we had a ceremony

tent for seating. But it was windy and the tent fell down. So Tata Sir decided to plant a banyan tree. And this how it came into existence.

The coconut tree near the hostel has an uncommon shape. And this happened because there was a building which was creating an obstacle to its growth. So it took a turn by itself to grow. Our surrounding teach us valuable lessons, we have to be observant enough to learn from them.

One of the visitors, favorites has been the balloon tree in front of the lab. They take photos next to it. And all the other trees you see to the sides of the



entrance are the ones planted by the dignitaries who have visited us. This is one of the initiatives of our director.

**How do you choose the place for the gardening?
Where do the plants collection come from?**

The plants are always planted at a ten feet distance from the building. The shrubs come at the front and the trees in the behind. Since the soil is fertile enough for the plant growth I can plant any variety and make a design out of it. The roots of the plants should be placed in a pit of two or two and a half feet down the ground for firm growth of the plants

The collection certainly matters. They are from different nurseries. They are usually planted in the January and August season. In fact, many plants are not native. They have been brought to bring variety in the garden.

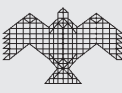
The flowers are eye catchers. So they are planted where it is visible. There are other shrubs which have to be matched with the trees. They have to be planted in a way that it does not hinder the growth of other trees.

Excerpted by Nivedita Raj, intern, NIAS



**“Gardening is just not a job. It is passion...
When you do something with passion,
you will never find it boring”**





Special Focus

Walking through NIAS

An interaction with Prof Anindya Sinha

This section - “Walking through NIAS,” is another new initiative. It aims to interact with an inhouse faculty or a visiting scholar with an objective to look at the Institute through their lens. How do they see the NIAS over the years? And what has been their contribution?

Prof Anindya Sinha is with the Animal Behaviour and Cognition Programme at NIAS. He is one of the senior scholars at the Institute (joined in November 1996). His research interests cover behavioural ecology and cognitive psychology of primates, animal molecular genetics, evolutionary biology, conservation biology and the philosophy of biology.

With a Master’s degree in botany and a doctorate in molecular biology, he has earlier worked on the biochemical genetics of yeast, the social biology of wasps, and the classical genetics of human disease.

His most important contributions lie in the understanding of the primate mind and its evolutionary history although he has also been credited with the scientific reporting of a new species of primate, the Arunachal macaque, from northeastern India.

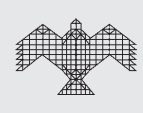
A small team of NIAS scholars and faculty members (Prof Anitha Kurup, Prof Sindhu Radhakrishna, Prof D Suba Chandran, Mr Nishant Srinivasiah and Ms Nivedita Raj) interact with Prof Sinha and also among themselves about him as well. Following are the excerpts.

Prof Anindya, how did you come to NIAS? What has been your journey ever since?

My being in NIAS is an interesting story. I was invited to give a talk here in 1996. I told them that I work on cognition and not consciousness, but Dr Sangeeta Menon said it would be alright and invited me. It was an informal round table discussion. Dr Raja Ramanna was present there. After a few days, I was called by Dr Sreekantan. He said he liked the talk and asked me if I would want to join NIAS for further research.

I thought it would be a great experience! Later, I was asked to meet Dr Raja Ramanna for further approval. That is a story worth mentioning. He asked me, “Are you willing to study monkeys all throughout your life?” and when I replied, “Yes”, without any reluctance he said that I have the job! I signed a five-year contract with NIAS.

By then I knew that NIAS was a good decision for me. I liked interacting and working with the



remarkable people here. To have Prof MN Srinivas listen to my talks and to meet dignitaries for tea and lunch were happy episodes. It was fascinating for me to meet such a multidisciplinary team in NIAS.

Why monkeys? How did they fascinate you to take them as a field of research?

I was always interested in watching human behaviour. Later it fascinated me to watch non-humans. And part of the reason for this is my interest in biology and geography. Learning about the theory of evolution by Darwin actually changed my life. My questions gradually turned towards animal cognitive behaviour. At some point, studying marine biology also interested me. There were, however, no options then in universities to study animal behaviour. And hence, I completed my Master's degree in botany. But I already knew my interests.

After six months in NIAS, I got a job in Pune University as a lecturer in Zoology. But I turned it down as I did not want to leave my monkeys behind! And I did not want to leave NIAS. I had an intellectual connection with this place. And my passion was so well supported here.

Prof Anitha, can you please share Anindya's inputs and contributions to the NIAS? And your own experiences of working with him?

We all joined NIAS with our passion and deep interests. NIAS provided us the space to develop our interest areas, which is rare to find in any other university. Anindya largely shaped the animal and cognition programme in NIAS as we see it today.

The flagship annual courses for senior executives and university teachers (three-week long) that drew the best leaders from all walks of life in the country greatly shaped the interdisciplinary perspectives of many of us who joined NIAS during the nineties.

Prof Sindhu, you have been working with him in the same programme. What would be his unique contribution, that only he could have provided?

He founded the Programme that we work in today. Openness to new ideas and willingness to welcome everyone is his USP. I joined NIAS only because I felt comfortable working with him and this is true of many of our associates in the Programme.

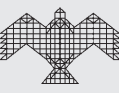
Nishanth, you have decided to work with Prof Anindya for your PhD. Why?

I met him during my Master's degree studies. I have great admiration for him. He has unique energy to bring out the best in you. He gives you freedom and makes you feel that you are doing a good job. He has confidence in you and this makes you have a long commitment towards your work. And I think this makes most of his students admire him.

Prof Anindya, how do you balance your personal and professional lives, given the fact that your research would demand substantial time of yours in the field?

It is hard to strike a balance. It depends on the 'need of the hour'. You will have to go with the situation and the necessities then. My family has completely supported me to continue my passion although there have also been times when it was difficult.





Each of us respond to this in a different way, given our temperament, given our priorities. In my case I have just stepped back.

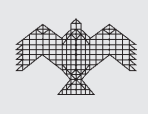
My wife and collaborator, Kakoli, has been my major source of support. We would share our household work and brought up our twin children together. And she has been remarkable enough to give up her career for our family. It is really up to individuals as to what they seek and what they can give up for themselves and for others.

Prof Anindya, few words about your colleagues here at the NIAS and your experience so far?

The people here are amazing. I have none in particular to mention. Every person I meet has a unique character and when I get to know some aspects of that person, I find that their passion is an inspiration for me.

NIAS has always been a great place to work especially as I meet people with completely different interests here, and I have collaborated with many of them. Initially we did not have a PhD programme but I later realised that young scholars make the environment even more interesting. We thus started the PhD programme in 1999.

One of the things that I have learned from my monkeys is to live here and now. There is no point regretting the past or anticipating the future – we should really make the best of now!



Campus Life

A Tryst with Elephants

Nishant Srinivasiah

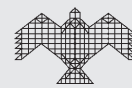
Research Scholar, Animal Behaviour and Cognition Programme, NIAS

I do not know what attracted me to the lumbering giants of the tropical forests, the Asian elephant, as a child. Was it their self-important gait? Grandiose size? Perceptible care and compassion towards their own kind? Or simply an overdose of watching Disney's Jungle Book and colonel Hathi on tele!, I wonder. There was something about the elephant kind that was very similar to us humans, but was yet different.

Regular visits to elephant forests during my school days, thanks to my parents, meant that that the interest in elephants grew on me. Soon I was the youngest member of the Zoo Youth Club at the Sri Chamarajendra Zoological Gardens in Mysore. Here I could bathe the elephants, feed them, clean their enclosure, learn the commands of the mahouts, get to know them as individuals, and most importantly, had all the time in the world to simply sit and observe them. I felt at peace in their company. I had realised that all I wanted to do was to know more about the lives of elephants, the life of a living being other than my own kind, how fascinating would that be!

A lot of work has already been done on this topic, especially in understanding the ecology of elephants that are living in the vast open forests of Asia and on human-elephant conflict. I was fortunate, over the years, to get opportunities to work on this very topic and learn from many generous and kind people who had acquainted themselves with elephants. But it was while carrying out my Master's dissertation in and around Bannerghatta National Park in Karnataka and a project documenting the mahout-elephant relationships across the elephant camps of Karnataka, when it occurred to me that it was the lives of individual elephants, that had the most compelling tales to tell. That was my 'Eureka' moment or as I would like to call it my 'Robin Island' experience.

I wanted to know, not just elephants, but 'individual' elephants now! This intention was nurtured through wonderful interactions with Anindya 'Rana' Sinha and Srinivas Vaidyanathan who have studied animal societies both at the individual and population levels for many years now and by reading awe inspiring books on elephant societies and individuals by Cynthia Moss and Raman Sukumar. Moreover, I think, these 'human' individuals gave me the



confidence that I could make a living by observing even one individual animal for the rest of my life!

And so for my doctoral study I decided that I would trace/record/observe the life and times of about 200 individually known elephants. The effort ever since has been to be a part of their lives, their triumph, grief, anger and fear. This meant that I had to spend time with wild elephants in the forest. A typical day on field would start at around 0600 hrs, when we start tracking the elephants, either in a vehicle or on foot, based on the tell tale signs of feeding, pad marks and dung that they have left behind. Once we pick up a fresh track we start following the elephants on foot until we see the animal/s. On spotting an individual elephant, a whole lot of data related to their biology, ecology and sociality is collected through long hours of observation. Technology comes to our aid in collecting such information, which include GPS devices, cameras, binoculars and dung collection kits to name a few. All of this, while making sure, that we do not disturb the animals so that we get the most accurate account of their 'natural behaviour'. This means, being constantly upwind, not talking, not wearing body scents, remaining camouflaged and at times trying not even breathe. The last happens involuntarily when elephants get close! I know by now, I run the risk of being called a stalker, if I were studying human societies. But a lot of the elephants I work with have had mostly negative interactions with people and hence are very shy. If they get to know that humans are around, they most often display a fight or a flight response. Overtime however, we have had

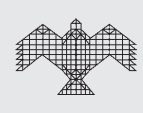
individual males and females who have accepted our presence in close proximity and carry on with their activities, but that's a story for another day. A day's observations end by 1800 h, when we get back to our camp and rest for a while before taking off for the night observations, which starts from 2100 h and may go on till 0400 h, depending on how long the elephants decide to feed from cropfields and range in human-dominated areas.

In the anthropocene epoch, elephants face their toughest challenge ever, a struggle to survive in a human-dominated landscape. For this they need to learn and adapt and be quick at that. My study is to try and understand behavioural decision making in elephants at the individual and population levels to see how the elephants are coping with their rapidly changing local ecological and anthropogenic settings. It is also to try and inform my own kind to ease the pressures on elephants to give them space and time to adapt and survive.

Many years ago I made a tryst with elephants, and now it seems the time has come when I shall redeem my pledge, not wholly or in full measure, but hopefully very substantially.

Photos: Above - Bush chat with forest department staff in Savandurga, Eastern Ghats; below - setting up camera traps in Banerghatta national park for photographing elephants.





Campus Life

Sun never sets in NIAS

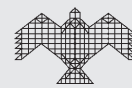
**Meera S, P Shyam Hari &
Aileni Manideep**

The Centre Court

Meera Sudhakar

While growing up, 6'o clock in the evening was a strict deadline for my sister and me to end our playtime and return home. It was part of my mother's evening routine to announce 6 PM, which she did quite loudly, from the vantage position of the first floor balcony that offered her an unobstructed view of the children's park at the staff quarters where all the children used to be in the evenings. Such was the efficiency of that routine that the other parents decided that my mother's call was the official end of play for the entire group. We would take turns on who would negotiate with my mother to extend playtime by ten more minutes, for one last round of kabaddi or lock and key.

Once I left home and moved to the city, while it should have been easier to find playtime unchallenged by parents intent on disciplining you, it got more and more difficult to find the space and time to play anything. So, one was overjoyed with the unexpected harking back that happened at the start of Phd life at NIAS. Here, 6'o clock is when there is permission for the rather serious and formal-looking central courtyard, to be transformed into a badminton court. When I invited a friend from outside NIAS to join for a game of badminton in the evenings, it is often met with a puzzled look followed by "You mean the IISc court". But then, one could be easily forgiven for being so unsuspecting of the transformation that happens in the evening – during daytime, walking along the corridors of the central courtyard, lined with staff-and-student-offices, one tends to keep one's voice low, almost unconsciously, scared that it might boom against the high-roof of the enclosed space and disturb the silence. The white-tiled floor looks even more awash with decorum beneath the blazing light that filters through the roof above that one can almost miss the frayed, blue-colored, insulating tape that forms the contours of a makeshift court. During daytime, it is an arena for post-seminar chat over tea and plum cake, on weighty matters, in hushed tones, but comes alive with voices battling over whether or not that forehand smash wasn't a tad bit inside the blue line. Once, the halogen lights that turn on at 6



and the badminton nets go up, the place transforms. Centre court, as I call it, complete with a roof above, albeit a leaky one keeps the game on even during the rainy season. But, the inside secret is that there is much less competition for a playing spot on a rainy day, when the roof lets in some water, and the court maintenance takes a bit more hard work. It is nevertheless an experiment of communality to witness an undeterred group, armed with mops, bucket and badminton rackets, keeping at it.

It could be a dangerous place for badminton though, given the hard surface, and will take a lot of weariness induced by a full day of reading theory. When yours truly took a fall last year and got a ligament sprain, she was gently taken to the side by a senior who have witnessed serious injuries and delayed PhDs as a result of these accidents, and was warned about how a tiled-floor unlike a wooden floor is much more harder on the knees as it can't absorb the impact of the fall. But, that has only meant that one might take an extra Calcium tab and pray that the shoes hold even as one takes that desperate lunge forward to counter that drop-shot.



The Thunder in Atrium

P Shyam Hari & Aileni Manideep

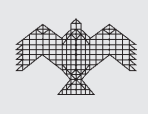
“All work and no play makes Jack a very dull boy”. Poor Jack! His fate seems to be sealed in that quote for an eternity, but we are no Jack. Not wasting much time on Jack, let me get to the main point. We had researched (we might be hyping a bit here) it in our own way that a good game in the evening is important to bring out the best in us, because we do very serious research during day-time, yeah including rockets, missiles and many other such dangerous words. When you walk into the NIAS atrium after six in the evening, be sure to hear the thunder - no not from Mjölnir, but from Yonex Arcsabers, Muscle Powers and Nanorays. Every evening, for a couple of hours, one can see young researchers smash a shuttle and forget the worries of Phd or life in general.

An informal group for playing badminton was started in 2010 by a few enthusiastic PhD students. The group now calls itself “Shuttlerockers” and has - 20 members. Few of us play regularly and the rest turn-up once in a while when they feel like having a distraction from daily stressors.

The game itself is physically and mentally exhaustive. The birdie moves incredibly fast and you have to cover the entire court. This makes it a perfect game for people who work throughout the day in front of their computers and want to take some steps, chassés, hitches, jumps, lunges and split drops.

The badminton court has been an interaction platform for researchers from different schools and batches to get to know each other. The bonds formed here often extend beyond to other unions of entertainment. For those of us who stay away from family, NIAS badminton court has given another one.

The regular exercise that comes with playing boosts self confidence and improves self-esteem. As our strength, skills, and stamina increase through playing, our self-image will improve as well. With the renewed vigor and energy that comes from physical activity, we shall be more likely to succeed in tasks off the playing field as well as on it.



Campus Life

The United Colors of NIAS

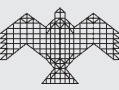
Vijayashree CS

The NIAS hostel is nothing short of a microcosm reflecting the NIAS ethos of interdisciplinarity. The hostel's residents come from disparate educational, cultural and linguistic backgrounds. In the day we are all separated by our schools, working on our diverse research interests. In the late evenings, when we meet at the hostel steps, we discuss our days' work and life in general, we strike a chord. We recognise commonalities in our academic interests, share and exchange ideas, often dine together at regular restaurants and occasionally explore new eateries at the locality, some turn out to be gastronomic delights and some misadventures.

Weekends at the NIAS hostel are usually placid and uneventful. The hostel residents are finishing up their chores, doing their weekly laundry or planning their next week's work. The Holi weekend was different; it was a refreshing change from the regular humdrum. When one hostel resident came up with an impromptu plan of playing Holi, everyone got excited. The hostellers and a few students and RAs staying around the campus met, an hour later from the decided time (come on, it was Sunday), in the morning. Not much preparation was required for the festival. We bought colours from the shop in the neighbourhood, glazed ourselves with a liberal amount of oil and petroleum jelly and Voilà! We were all set to play.

There was colour, there was hose pipe, there was music, and there was dance. Some friends surprised us with their dance moves. It was elating to see students from diverse cultural backgrounds united by spirit and colour. Starting at 11 am, we played till late noon. After the customary posing for display pictures, we ended the celebrations. While we struggled to scrub off the colour from our body, the memories of all the fun and frolic lingered in our minds.

So what is the next festival? Ugadi is it? The beginning of New Year for Kannadigas. We haven't planned a celebration yet. But I'm sure just like last time; we will come up with a plan. After all how difficult is it to get jaggery? And there is a Neem tree in NIAS.



Campus Life

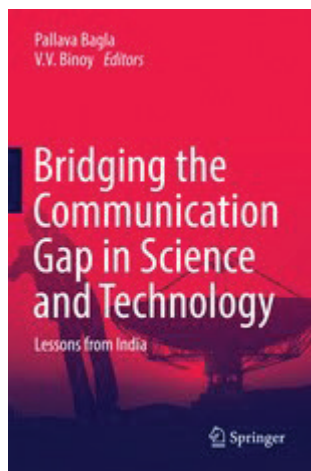
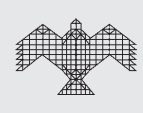
Rang de Basanti

Above: Manideep and Surya Sen in a Color me Green competition.

Left: Shyam and Surya attempting to invent a Holi Yoga .

Below: The normal us. Equally colourful and cheerful





NIAS Book Shelf

Bridging the Communication Gap in Science and Technology: Lessons from India

Edited by Pallava Bagla & V V Binoy

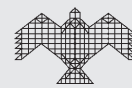
This first-of-a-kind volume provides a snapshot of existing science communication policy and practice in India across different S&T sectors, and offers solutions to building effective communication. It provides an understanding on how to avoid societal clashes in situations when science meets the public in these sectors. The editors and contributors argue that effective S&T communication leads not only to a more informed public but also benefits research itself, and in a changing society like India this is a crucial element related to good governance and policy making.

In this volume, experienced masters of the craft provide practical solutions to making S&T communication more effective in a vast democracy like India, which has complex issues related to literacy levels, diverse languages, varying political will, reach, and resources. Through discussions on cases of creating information modules for the public on the Internet, television and radio, social media, as well as traditional ways of outreach like people's science movements, holding popular science events, and fairs, the volume provides highly valuable directions on how developing countries with low resources and complex populations can communicate S&T research to the public and bridge communication gaps.

This volume will interest researchers from science, social science, mass communication and public relations departments, journalists, as well as practitioners and policy makers from government and non-government institutions involved in S&T policy, practice and communication and people who want to understand the complex S&T landscape of India.

Foreword by Prof VS Ramamurthy:

"The recent debates on nuclear energy, GM food etc. clearly demonstrate that taking public into confidence is an important component of technology options. It is only Science Communication that can ensure informed technology options. It is important to communicate Science and Technology to the common man but it is also important to communicate the public perceptions to the scientists and other policy makers. This is the new challenge of the twenty first century."



NIAS Publications

Books, Chapters, Essays, Reports & Commentaries

Soundarya Iyer, "Circular Migration and Localized Urbanization in Rural India," *Environment and Urbanisation ASIA*, Volume 8, Issue 5, p.549-119 (2017)

Krupa Rajangam, "Linking People and Heritage: Lessons from Community Engagement Initiatives in India", *Heritage, Culture and Identity*, Edited by Gill Chitty, Routledge, New York, p.213-225 (2017)



Baldev Raj and U Kamachi Mudali, *Sensor Science and Technology*, Narosa Publishers Ltd, New Delhi, p.392 (2017)

D. Suba Chandran, "Fighting Daesh: Regional Counter Strategy," *Daily Times*, 30 March 2017

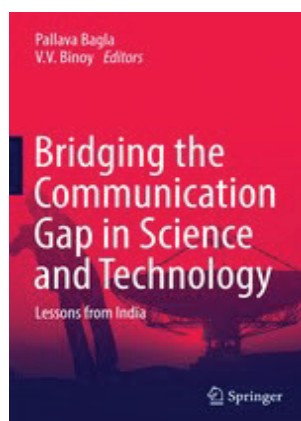
Srikumar M Menon, "The Beat of a Different Drum," *Deccan Herald*, 28 March 2017

Sundar Sarukkai, "The Many Shades of Happiness," *The Hindu*, 23 March 2017

D Suba Chandran, "A Modi March," *The Friday Times*, 17 March 2017

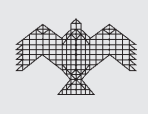


Narendar Pani, "Siddaramaiah's brand of sense and sensitivity in an election year," *The Hindu*, 16 March 2017



Sundar Sarukkai, "#feminism: Sexism in Indian science," *Deccan Chronicle*, 5 March 2017

Pallava Bagla and V V Binoy(Eds.), *Bridging the Communication Gap in Science and Technology: Lessons from India*, Springer, 2017



Hema Thakur, “Early Historic Material Culture in Karnataka with Particular Reference to Banavasi, North Kanara, India,” *Ancient Asia*, Volume 8, Issue 2, p.1-11 (2017)



Geetha Anand and Sangeetha Menon, “Body, Self and Consciousness according to Tirumūlar’s Tirumandiram: A Comparative study with Kashmir Śaivism,” *International Journal of Dharma Studies*, Volume 5, Issue 3 (2017)

D Suba Chandran, “Military Courts in Pakistan: Will they return? What are the implications?” *NIAS Strategic Forecast* (2017)

“Health Inequalities: The Indian Context,” *NIAS Wednesday Discussion Report* (2017)

Nithin Nagaraj and Karthi Balasubramanian, “Dynamical complexity of short and noisy time series: Compression-Complexity vs. Shannon entropy,” *The European Physical Journal Special Topics* (2017)



BV Sreekantan and Ram Cowsik, “M G K. Menon (1928–2016)” *Science*, Vol. 799, Issue 6769, pp. 986, 10 February 2017

Sundar Sarukkai, “When the Unelected Set the Agenda” *The Hindu*, 22 February 2017

Sundar Sarukkai, “Moving bus movies” *The Hindu*, 18 February 2017

R Srikanth, “Green calling: Forests from the mines” *Deccan Chronicle*, 20 February 2017

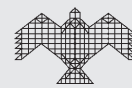
Aparupa Bhattacharjee, “The Rohingya Insurgents: Myanmar Creates its own Frankenstein” *The Diplomat*, 9 February 2017

D Suba Chandran, “An eyewash or a turning point?” *The Hindu*, 9 February 2017

Sharada Srinivasan, “Iron Age Beta (23% tin) Bronze: Peninsular Indian Bowls of Adichanallur, Nilgiris and Boregaon,” *Materials and Manufacturing Processes* (2017)

Sharada Srinivasan, “Ultra-high Carbon “wootz” from Crucible Carburization of Molten Iron: Hypereutectoid Steel from “Tamil Nadu Process” at Melsiruvalur,” *Materials and Manufacturing Processes* (2017)

Narendar Pani, “When Institutions are Put on the Mat,” *The Hindu Business Line*, 22 January 2017



NIAS Events

Conferences, Workshops & Meetings

NIAS Strategic Forecasts (March 31, 2017)

Coordinator: Prof D Suba Chandran

National Workshop on Science Films (March 28 to 30, 2017)

Coordinator: Dr VV Binoy

International Politics Today and Indo-Iran Relations and Global Threats of Extremism (March 24, 2017)

His Excellency Dr Kharrazi, President of Strategic Council on Foreign Relations (SCFR) and the Secretary of Cognitive Science and Technologies Council of Iran and his team visited NIAS and had a discussion with ISSSP members.

Coordinator: Prof Rajaram Nagappa

BRICS STEP Preparatory Meeting (March 17, 2017)

BRICS Experts Meeting (March 14 and 15, 2017)

Discussion Meeting on Understanding Strategic Implications of Chinese Shang Class Nuclear-Powered Attack Submarine Visit to Karachi, Recent Reported Firing Trial of the Babur III and The Rafael Grossi's New Revised Draft Version of 'Exchange of Notes' For Non-NPT Applicants (February 6, 2017)

Coordinator: Dr M Mayilvaganan

Two Days Workshop on NIAS-UNDP Initiative on Inequality and Human Development

(February 6 and 7, 2017)

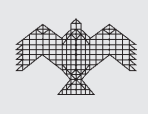
Coordinator: Prof Narendar Pani

Consultation Meeting on Women in STEM (January 27 and 28, 2017)

Coordinator: Dr Leya Mathew

Seminar on Contested Exclusions in Higher Education (January 24 and 25, 2017)

Coordinator: Dr Shivali Tukdeo



A One Day Workshop on Rooftop Solar under MNRE Project “Facilitating target of 100 GW Solar by 2022”

(January 11, 2017)

Coordinator: Dr Hippu Salk Kristle Nathan

National Level Seminar on Nation, Community, and Citizenship in Contemporary India (January 9 and 10, 2017)

Coordinator: Prof Carol Upadhy

PUBLIC PROGRAMMES

Dr Ceon Ramon

Departments of Electrical Engineering and Neurology, University of Washington, Seattle, USA

Sixth FIRST Lecture on Neuroscience of Mind–Brain Interactions

March 31, 2017

Pandit Parameshwar Hegde and Team

Bengaluru

Hindustani Classical Vocal

March 23, 2017

Mr Balan Nambiar

Painter, Sculptor and Photographer, Bengaluru
Golden Ratio, Fibonacci Sequences and Fractals in Mathematics, Nature and the Art

March 22, 2017

Dr A Sivathanu Pillai

Honorary Distinguished Professor, ISRO, Bengaluru
Science, Technology and Innovation Policy

March 14, 2017

Ms Shabnam Virmani

Filmmaker, Singer and Artist, Srishti, Bengaluru
Sajni, Heli, Piya - Songs and Conversations on Gender in Mystic Poetry

March 1, 2017

Prof PS Goel

Dr Raja Ramanna Chair Professor, NIAS
Science and Geopolitics of Antarctica

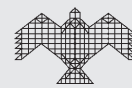
February 21, 2017

Vidwan D Balakrishna

Bangalore

Carnatic Classical Veena

February 15, 2017



Prof PS Goel

Dr Raja Ramanna Chair Professor, NIAS
Science, Technology & Space (Applications and Challenges)
 February 14, 2017

Ambassador PS Raghavan

Convener, National Security Advisory Board, New Delhi
Science and Diplomacy
 February 6, 2017

Prof Mark Peterson

Mount Holyoke College, USA
Galileo's Sources in the Arts
 January 27, 2017

Dr Bindu M Kutty

Department of Neurophysiology, NIMHANS, Bengaluru
Fifth FIRST Lecture on Animal Models of Cognitive Deficits: Implications for Plasticity and Functional Recovery
 January 27, 2017



Mr Ricky Kej

Proprietor, Music Producer, Music Director, Raveolution Studios, Bengaluru
Language of Music and Arts for Change
 January 19, 2017

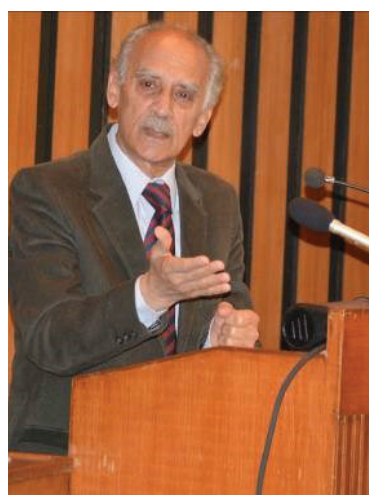


Mr Chandra Bhushan

Dy Director General, Centre for Science and Environment, New Delhi
Climate Change and Energy Transformation: The Road Ahead for India
 January 18, 2017

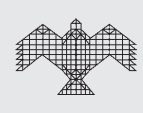
Dr Jon Wilson

Department of History, King's College, London
The Chaos of Empire and the Spaces for Indian Science and Technology
 January 17, 2017



Dr Arun Shourie

Former Minister for Communication and Information Technology
Politics of Development
 January 17, 2017



Mr Suresh Prabhu

Hon'ble Union Minister of Railways

Paradigm Shift in Governance-Impact on Business and Society

January 16, 2017

Prof Chris Greig

University of Queensland

Achieving Deep Decarbonisation of the Power Sector – Special Challenges for India and China

January 13, 2017

Prof Andrew Thorpe

Pro-Vice-Chancellor for Humanities and Professor of Modern History, University of Exeter, UK

Post-Brexit British Politics in Historical Perspective'

January 13, 2017

Dr Tilak Agerwala

IBM Research Emeritus and IBM Research Vice President (Retd)

TJ Watson Research Center, Greater New York City Area, IBM, USA

The Impact of Big Data Computing and Augmented Intelligence

January 12, 2017



Prof Malavika Kapur, NIAS

Prof Surinder S Jodhka, Jawaharlal Nehru University

Prof MN Panini, Mysuru; Retired Professor, Jawaharlal Nehru University

Prof N Jayaram, Bengaluru; Retired Professor, Tata Institute of Social Sciences

Panel Discussion on MN Srinivas as a Public Intellectual
January 9, 2017

NIAS WEDNESDAY DISCUSSION MEETINGS

Dr Jeebanlata Salam

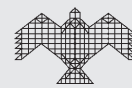
Assistant Professor, NIAS

Prof D Suba Chandran

Professor, NIAS

Mobile Literacy Institutions in Conflict Zones of India's Periphery: A Case of Manipur and J&K

March 8, 2017

**Prof Sundar Sarukkai**

Professor, NIAS

Women Cannot Do Science

March 1, 2017

Dr Shailaja D Sharma

Adjunct Faculty, NIAS

Number Representation: Utility, Aesthetics and Innovation

February 22, 2017

**Vice Admiral RN Ganesh**

Adjunct Professor, NIAS & Director Asia Centre, Bengaluru

India's Maritime Strategy

January 18, 2017

Mr Nitin Pai

Director, Takshashila Institutions, Bengaluru

Geo-Economics of India's Energy Security

February 15, 2017

Dr GN Dayananda

Centre for Societal Missions and Special Technologies, CSMST, Bengaluru

Wind Energy Prospects and Challenges in India

February 8, 2017

Prof Sisir Roy

TV Raman Pai Chair Visiting Professor, NIAS

Quantum Ontology and Ultimate Reality

January 11, 2017

Dr Hippu Salk Kristle Nathan

Assistant Professor, NIAS

Dying in Silence: A Study on Mortality-Morbidity Gap in India

February 1, 2017

Dr Abha S Rao

Assistant Professor, NIAS

Health Inequities in the Indian Context

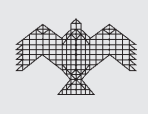
January 4, 2017

Mr Srikumar M Menon

Research Officer, NIAS

Badami: An Ode to Sandstone

January 25, 2017



ASSOCIATES' PROGRAMME

Nrityagram Ensemble

Bengaluru

Odissi Dance Performance

January 20, 2017

Dr Prashant Keshavmurthy

Associate Professor, Persian-Iranian Studies in
the Institute of Islamic Studies, McGill University,
Montreal

*A Hindu Allegory of the Islamic Philosopher-King: The
Tale of Madan and Kāmdī in Bedil's Irfān*

February 8, 2017

LITERARY, ARTS AND HERITAGE FORUM

Dr James Black

Founder and Publisher, Archetype Publications,
London

*A journey through Publishing and Short Courses in Art
Conservation...*

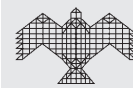
February 17, 2017

Prof Mark Peterson

Mount Holyoke College, USA

Galileo's Sources in the Arts

January 27, 2017



Column

Birds and Blooms

MB Rajani

Assistant Professor, NIAS



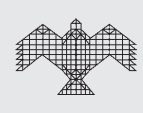
Barbets belong to a group of near passerine birds with a worldwide tropical distribution. They get their name from the bristles at the bases of their stout, sharp bills. The brown-headed barbet (*Psilopogon zeylanicus*) is relatively large at 27 cm, and is a resident breeder in the Indian subcontinent. It is widespread in India and also seen in Bangladesh and Sri Lanka.

It is a plump bird, with a short neck, a large head and a short tail. The adults of both sexes are similar, each with a streaked brown head, neck and breast, with a yellow eye patch and a thick red bill. The rest of the plumage is green. It eats fruit (mangoes, ripe jackfruit, papaya, banana, figs) and insects. It is fairly tolerant of humans, and is often seen in green area (urban and country gardens), and tends to avoid heavily forested areas. It nests in a suitable hole in a tree, which it will often excavate out (as a woodpecker would) to lay 2 to 4 eggs.

A pair will take turns to incubate the eggs and they often communicate with each other using their “Kura, Kura” calls. The regular call is a repetitive kutroo... kutroo... kutroo. Others take up the call when one starts, but they are somewhat silent in the winter.

During tea time at NIAS you may spot their distinctive yellow and green flashes in the adjoining woods or hear their call intermingling with your conversations.





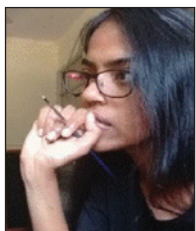
Column

Nature Nurture

When a new Life blossoms at your backyard

Ekta Gupta

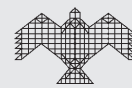
Doctoral Scholar, NIAS



‘क्षणेक्षणेयन्नवतामुपैतत तदेव रूपंरमणीयतायाः’ it means Beauty is that which takes on a new form every minute so that the one who looks at it never gets tired or bored. And the artist behind these new form is nature. Being a nature lover I always love to be at NIAS campus. Although every season has its own unique flavour, but its spring which makes the campus more lively and colourful lively with the presence of beautiful butterflies who visit the campus for nectar party and colourful with abundance of variety of host flowers which sway with wind in a welcoming spirit. It is known that a butterfly goes through four stages and the most interesting one is chrysalis. Who wouldn't have a desire to be a witness of these life transformations stages that also have deep rooted philosophical meanings? One day while walking along the bushes at NIAS back gate, a beautiful delicate wool-like white caterpillar which was busy in feeding itself on palm leaf innocently stole my attention. This, the most awaited, encounter was not only excited but also woven a desire to see it turning into a chrysalis and then an adult butterfly.

Next day the excited and impatient eyes got filled with melancholy. There was no caterpillar, not even on the neighbouring plants. But that was not the end, it led to a series of hunting and probing in and around the campus. The same day, on the way back to the GIS lab after a tea break, palm trees just outside the lab grabbed the attention. Ecstasy level went up noticing a number of caterpillars of different sizes preparing themselves for their next stage. Few caterpillars had already transformed themselves into chrysalides by hiding wonderfully themselves inside the palm leaf roll. It was very astonishing to even imagine the little sluggish creature capturing and gluing the adjacent blades of palm tree turning around itself to make a cage of a roll.

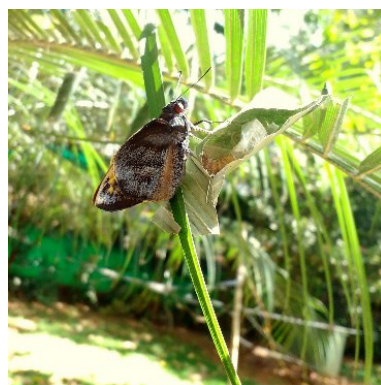
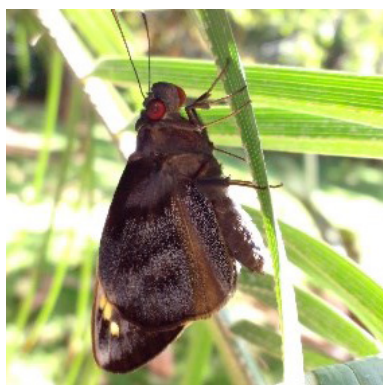
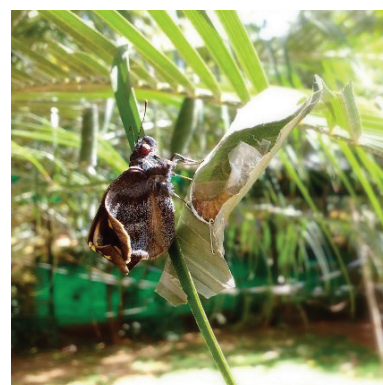
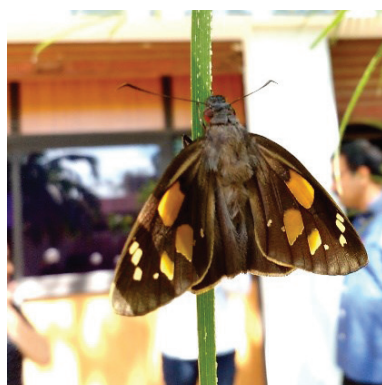
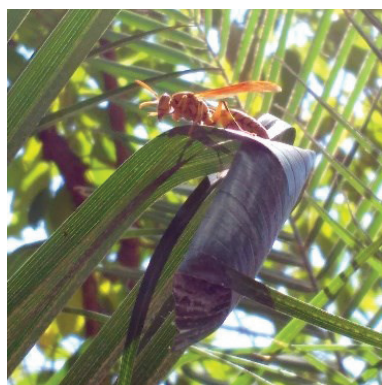
Me and my friends were standing in awe seeing this small wonder of nature when Dr Binoy came and threw more light on the lifecycle of butterfly and predator pressure on them (we called the open area outside our lab as Binoy's open laboratory, as he keeps on nourishing our knowledge about the small otherwise unnoticed world that surrounds our lab). As the pupae were inside the palm roll, it was difficult for us to have a close look on them.

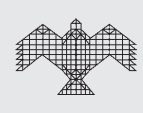


Dr Binoy cut the palm leaf roll with an assurance that this would not affect the pupa and showed us the anatomy of developing butterfly through the translucent covering of pupa and stitched the roll back using a stapler. He mentioned the strange behaviour of some species of wasp that lay their eggs in newly-formed pupae. The wasp tranquilises the caterpillar/pupae with its venom and lays its egg inside it using its ovipositor which resembles a syringe. This 'procedure' make the caterpillar paralysed but won't kill it.

The eggs of wasps when hatch eats the zombified chrysalis from inside out and the caterpillar/ pupae will be alive till the wasp larvae emerges as the adults. It was little sad to know the way wasp prey

on butterfly but that is how nature balances itself. Anyways, the thrill was on brim to catch the moment, a moment of super transformation, a moment when a butterfly struggles to break its hard chrysalis and take up a beautiful form, a moment that has been a source of inspiration for many. After 11 days we found a butterfly gradually coming out of its pupa, expanding and drying its wing, it was from the same cocoon that Dr Binoy showed us. It was a skipper butterfly with bright yellow dots on its brown skin. Often they are mistaken for a moth but could be easily identified by its wing position, skipper always keep their wing in an angle of 45 degree. My eyes were on it with still lids till the time it flew away. It seemed to be celebrating the fruit of its hardwork the existence of its life, the presence of wings to fly...





Column

Whirls of Words

Samhita K

Research Associate, NIAS



&

Shankar Rajaraman

Doctoral Scholar, NIAS



Une Journée d'Avril à l'Institut National d'Études Avancées

Samhita K

Quand le soleil se lève
Les chercheurs arrivent
Leurs esprits sont lumineux et leurs cœurs légers

Ils sont prêts à commencer la journée avec l'intellectualisme, en sirotant une tasse de café ou de thé et en socialisant avec d'autres jeunes et les vieux chercheurs.

NIAS a une existence propre, à la lumière du jour et au clair de lune.

Comme une petite oasis au milieu d'un désert, Elle parle une langue qui lui est propre, et vous tire avec son charme séduisant.

NIAS a un élément transpersonnel, qui est indescriptible

L'ambiance relaxante et productive de cet institut pluridisciplinaire attise votre esprit.

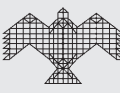
Si vous travaillez dans la bibliothèque intellectuellement stimulante, vous perdez la trace du temps.

Lorsque vous êtes dans la bibliothèque, c'est une fête pour le cerveau. Vous pouvez voler sans ailes, et nourrir votre âme.

Après un déjeuner enrichissant, vous pouvez vous promener dans le campus de l'Institut Indien de Science, méditer sur la beauté sauvage de la nature et recharger vos <<batteries>>.

Les arbres, les fleurs et les plantes vous attirent.

Vous continuez votre travail nonchalamment, puis buvez une autre tasse de café ou de thé.



Lorsque le soleil se couche, vous êtes prêt à rentrer chez vous.

Vous emballez votre sac et marcher vers la sortie.

Votre cœur est content et votre âme a grandi.

Si vous voulez les meilleurs trucs des deux mondes, venez, venez à NIAS dans le mois d'été d'avril.

English translation of the above French poem is below

An April Day at NIAS

When the sun goes up

The researchers arrive

Their minds are bright and their hearts are light

They are ready to begin the day with intellectualism, sipping a cup of coffee or tea and by socializing with other young and old researchers.

NIAS has an existence of its own, in daylight and in moonlight.

Like a small oasis in the midst of a desert,

It speaks a language of its own, and pulls you with its alluring charm.

NIAS has a transpersonal element, which is indescribable.

The relaxing yet productive vibe of this multidisciplinary institute boggles your mind.

If you work in the intellectually stimulating library, you lose track of time.

When you are in the library, it is a feast to the brain. You can fly without wings, and feed your soul.

After a fulfilling lunch, you can walk into the Indian Institute of Science campus, meditating on the wild beauty of nature and recharging your “batteries”.

The trees, flowers and plants beckon you.

You then continue your work nonchalantly, and then drink another cup of coffee or tea.

When the sun goes down, you are ready to go home.

You pack your bag and walk towards the gate.

Your heart is contented and your soul has grown.

If you want the best of both worlds, come, come to NIAS in the summery month of April.

Gopi's Lament

Shankar Rajaraman

In this verse, a cowherd girl describes her lovelorn state to a confidant. Long after *Krishna* has left for *Mathura* along with *Kamsa's* minister *Akrura*, she still feels his presence in the hamlet of *Gokula*.

ते वेणुध्वनयोऽधुनापि यमुनाकूले श्रुतेर्गोचरा

उन्मीलितमालिकासुरभयो वाता वहन्त्येव ते ।

वर्णोऽद्यापि न कोऽपि लोचनपथे श्यामेतरो द्योतते

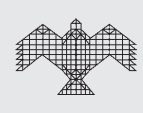
नेदानीमपि गान्दिनीसुतरथोद्धूतं रजः शाम्यति ॥

Even now the sound of flute echoes on the banks of Yamuna.

Even now the breeze is thick with the fragrance of his forest garland, Vanamala.

Even now the eyes cannot make out any other color than blue.

Even now the dust raised by *Akrura's* chariot has not settled.



NIAS News

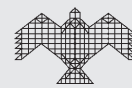
Awards & Honours



Prof Baldev Raj, Director, NIAS received SASTRA-CNR Rao Award for Excellence in Chemistry and Materials Sciences by SASTRA University, Thanjavur, February 28, 2017; Degree of Doctor of Science (Honoris Causa) for the outstanding contribution in the field of Science and Technology by Indian Institute of Engineering Science and Technology (IIST), an Institute created by Act of Parliament, Shibpur, March 4, 2017; Jawaharlal Nehru Birth Centenary Award (to honour key individual for significant and lifetime contribution to the development of Science and Technology for the country) by *Indian Science Congress Association (ISCA)*, announced during 104th Indian Science Congress at SV University, Tirupati, January 3, 2017 and 20th SIES Sri Chandrasekarendra Saraswati National Eminence Award 2017 in the domain of S&T for serving the society for more than four decades.

Hon'ble Prime Minister of India and President, Council of Scientific and Industrial Research (CSIR) has appointed Prof Baldev Raj as the Chancellor and Chairperson of the Board of Governors of the Academy of Scientific and Innovative Research (ACSIR), CSIR, New Delhi.

He has been appointed as a Chairman of the Eminent Apex Committee of Council of Scientific and Industrial Research (CSIR) to recommend transformations and improvements for meeting and enhancing the objectives of CSIR. Department of Science and Technology (DST) has appointed him as a Chairman of BRICS – Science and Technology Enterprise Partnership (BRICS-STEP) Working Group for a period of four years. He has been requested to Chair BRICS Experts Panel Committee on International Collaborations relating to Advanced Materials, Nanotechnology, Photonics, Astronomy and Astrophysics.



Congratulations



Prof Carol Upadhy was awarded a CEU/HESP Research Excellence Fellowship by the Open Society Foundations and spent the fall term of 2016-17 at the Department of Sociology and Anthropology, Central European University, Budapest.



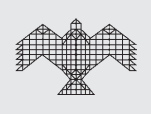
Dr Smriti Haricharan joined NIAS as **Assistant Professor** under the Heritage Science and Society Programme in the School of Humanities on January 2, 2017.



Dr M Mayilvaganan has been promoted to the position of **Associate Professor** with effect from January 1, 2017.



Dr Shivali Tukdeo has been promoted to the position of **Associate Professor** with effect from March 15, 2017.

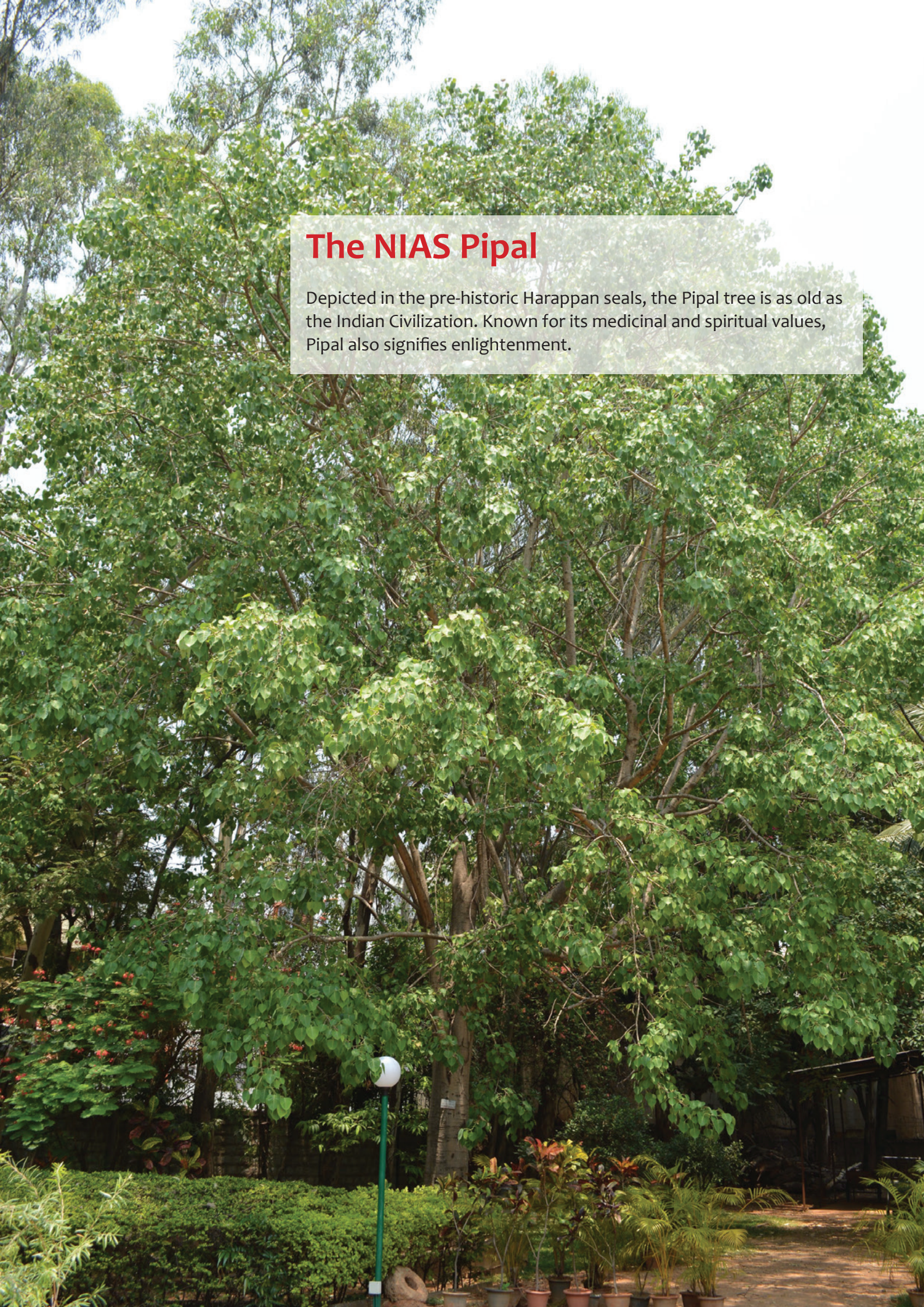


47th Meeting of the NIAS Council of Management (March 6, 2017)



The NIAS Pipal

Depicted in the pre-historic Harappan seals, the Pipal tree is as old as the Indian Civilization. Known for its medicinal and spiritual values, Pipal also signifies enlightenment.



The image shows two tall, slender Christmas trees with a tiered, conical shape, standing in front of a building with a red-tiled roof. The trees are dark green and have a dense, needle-like foliage. The building behind them has multiple levels with arched windows and doorways. The sky is clear and blue. A semi-transparent white box with text is overlaid on the upper part of the image.

The Christmas Twins

Two sets of Christmas trees in front of and opposite the JRD Tata auditorium add color and variety to the NIAS plant family. The evergreen fir is known across the civilizations in pre and post Christian world.