

Saradindu Bhaduri

Associate Professor

Chairperson (2017-19)

Centre for Studies in Science Policy (CSSP)

Founding Coordinator

JNU-ICFI Transdisciplinary Research Cluster on Frugality Studies (TRCFS)

#232, School of Social Sciences-I

Jawaharlal Nehru University, New Delhi 110067, India

Phone:+ 91-11-26704472 (Direct), +91-11-26704461 (Office)

Email: saradindu@jnu.ac.in, bhaduri@iss.nl

Employment:

- Apr 2014 – till date Associate Professor, CSSP, JNU
- Oct 2003- Apr 2014 Assistant Professor, CSSP, JNU
- Dec 2002 – Oct 2003 **Lecturer (Economics)**
Department of Commerce with Farm Management
Vidyasagar University, West Bengal
- Apr 2002 – Dec 2002 **Research Scientist (Lecturer grade)**
Centre for Studies in Diplomacy, International Law and Economics
(currently, Centre for International Trade and Development)
School of International Studies
Jawaharlal Nehru University, New Delhi

Honorary Professorship:

- 1. Visiting Professor (Selected), India Studies (Economics), (Under Chairs Abroad Programme, by the Indian Council for Cultural Relations) (Could not join).**
- 2. Professor (Honorary, Emeriti), 2018-2023 & Prince Claus Chair in Development and Equity (2015-2017) at the International Institute of Social Studies (of Erasmus University of Rotterdam). The Netherlands.**

Post-Doctoral Fellowship

- Post Doctoral Fellow in Evolutionary Economics, Evolutionary Economics Group, Max Planck Institute of Economics, Jena, Germany, (Jan-Dec, 2005).**

EDUCATION

1999- 2001

Ph.D. (Economics), Jawaharlal Nehru University, New Delhi

PhD Thesis title: *An Economic Analysis of R&D and Technology Generation in the Indian Pharmaceutical Industry*, Supervisor: Professor Amit S Ray

1997-1999

MPhil in Economics (International Trade and Development). Jawaharlal Nehru University, New Delhi

Awarded 'Outstanding (A plus) grade in dissertation. Supervisor: Professor Amit S Ray

1995-1997

MA in Economics (World Economy, EIL), School of International Studies, Jawaharlal Nehru University

AREAS OF INTEREST

- Heterodox (evolutionary) economic approaches to technological change, and innovation.
- Frugal and grassroots innovations.
- Technology Policy Processes, Intellectual Property Rights.
- Economic Development.

TEACHING:

1. Analysis in Science Policy (Monsoon Semester, Compulsory, CSSP)
2. Economics of Technological Change and Innovation System (Winter Semester, Optional, CSSP)
3. Intellectual Property Rights: A Foundation Course (Winter Semester, Optional, CSSP).
4. Intellectual Property Rights, Bachelors of Engineering. JNU (Compulsory).
5. Economics of Technology and Development (MA, Economics, Centre for International Trade and Development, JNU). Taught 4 modules for 3 years (2007-2010 (Course in charge: Amit S Ray).
6. Frugal Innovation (Bachelors), run by the Leiden-Delft-Erasmus Universities' International Centre for Frugal Innovation. (Usually take 2 lectures in the module on Frugal Innovation for Development, Autumn Semester).
7. Lectures in the course on Development Studies (Master's) at ISS (of Erasmus University of Rotterdam).

RESEARCH SUPERVISION

PhD (Completed)

1. An analysis of global innovation value chain in the Indian pharmaceutical industry. Ashish Gosain. 2023. (Co-supervisor: Saon Ray. ICRIER, New Delhi).

2. The emerging landscape of India's rare disease policymaking in evolutionary perspective. Shyamjeet Maniram Yadav. 2023. (Co-supervisor: Madhav Govind. JNU. New Delhi).
3. Persistence of Fixed Dose Combinations in the Indian pharmaceutical industry: an evolutionary perspective. Rahul Mongia. 2020.
4. Biomedical innovation systems in India: issues and challenges in translational research. Swarup Kishen Jena. 2020.
5. Technological change in Ayurveda medicine industry: the case of Bhasma. Abha Arya. 2020. (Co-supervisor: Sudipt Rath, NIA, Jaipur)
6. Public procurement and building technological capability for innovation: case studies from the defence sector in India, 1960-2013. Kapil Dhanraj Patil. 2019.
7. Technological change in Indian household water purifiers: an evolutionary perspective. Nazia Talat. 2019.
8. Scientific Temper and Skill Development Through Education: An analysis of select Industrial Training Institutes in India. Subhash Kumar. 2019. (Co-Supervisor: Madhav Govind).
9. Science and situated knowledge: coffee growers and adaptation strategies for climate change in South India. Anshu Ogra. 2019. (Co-supervisor: Rohan D'Souza)
10. Globally harmonised clinical trials in India: a socio-economic analysis. Brijesh Regal. 2018.
11. Social values, IPR diversity and economic performance: a 'comparative institutional analysis' perspective. Deep Jyoti Francis. 2018.
12. Perspectives on informal sector innovations in India: value theory revisited. Fayaz Ahmad Sheikh. 2017.
13. An institutional analysis of rainwater harvesting technologies in the commons: a study of select areas in Rajasthan. Anushree Singh. 2017.
14. Ideational influence of Bengal Renaissance and Rabindranath Tagore on India's S&T policies of self reliance. Noklennyangla. 2017.
15. Traditional medicinal knowledge in the post-WTO regime: A study of tribal practices in Wayanad district, Kerala. Deepa V.K. 2016.
16. "Standards, technology and public participation: regulation-making for bottled water quality in India". Aviram Sharma. 2015.

17. “Market based approaches in the negotiations at the UNFCCC: Implications for environmental justice”. Manish Srivastava. 2014.
18. “Exploring motivation, collaboration and linkages for grassroot innovation systems in India”. Hemant Kumar. 2012.
19. “Innovation dynamics in shifting cultivation: the case of Jhum in Nagaland”, by Abhinandan Saikia, 2011.
20. Gender Discrimination, Technology and Institution in the Indian Coal Mine Industry: an evolutionary perspective”, by Nesar Ahmad, 2011.

❖ **Completed supervising 24 MPhils.**

PUBLICATIONS:

Monograph:

- *Frugal Innovations by ‘the small and the marginal’: an alternative discourse on innovation and development.* Prince Claus Chair Inaugural Lecture, ISS. The Hague.
- *The Political economy of smoking tobacco in India: Perspectives on Production, Consumption and Control.* VHAI, New Delhi (2010). (with Amit S Ray and Hemant Kumar)
 - http://www.telegraphindia.com/1100219/jsp/nation/story_12125376.jsp for a brief sketch of our key arguments.

Edited Books and Journal Issues:

1. Handbook on Frugal Innovation. (forthcoming). With Andre Leliveld, Peter Knorringa and Cees Van Beers. (Edward Elgar)
2. Edited IndiaLICS special issue. African Journal of Science Technology Innovation and Development. With Sujit Bhattacharya. Vol 13 (7). 2021.
3. Edited. IndiaLICS special issues. Journal of Scientometric Research. August 2021. (with Anup Kumar Das and Sujit Bhattacharaya)
4. Special Issue on “Pharmaceutical industry in the global South”. *Science Technology Society*. Vol 23 (3) (2018). Sage.
5. Book: Editor, *Informal Sector Innovations: Perspectives from the Global South*. Routledge. (with: Mammo Muchie, Anga Baskaran and Fayaz Ahmad Sheikh), 2015.
6. Editor, Special Issues [nos. 6(3) and 6(6)] on “Informal sector innovation”. *African Journal of Science Technology Innovation and Development*. Taylor and Francis, Routledge. 2014.

Journal Articles (Research theme wise, reverse chronological order):

Technological capabilities/technological change in the industry:

1. "Tradition and innovation: Between dynamics and tensions", *African Journal of Science, Technology, Innovation and Development*, 11:5, 533-542, DOI: [10.1080/20421338.2018.1558743](https://doi.org/10.1080/20421338.2018.1558743) (with Maria de Fátima Ferreira, Fayaz Ahmad Sheikh, Merli Reidolf, Cristina de Sousa). 2019.
2. "Human Values in Disposing the Dead: An Inquiry into Cremation Technology". *Journal of Human Values*, 25(1), 52-65. (with V.N. Prajapati). 2019.
3. "Technological capabilities in the Indian Ayurveda medicine industry: Lessons for 'industrialisation' of alternative medicine in the post-WTO regime". *African Journal of Science Technology Innovation and Development*. Vol 10 (3). 287-298. (with Abha Arya). 2017.
4. "Incremental innovations, information contagion and path dependence: the case of drinking water purification technologies in urban India". *Industrial and Corporate Change*. DOI: <https://doi.org/10.1093/icc/dtx010> 2017) (with Nazia Talat). 26 (3). 2017.
5. "Consumption conundrum of bottled water in India: An STS perspective". *Bulletin of Science Technology and Society*. 33 (5-6): pp. 172-181, first online published on May 2, 2014 (with Aviram Sharma)
6. "Examining the determinants of drug launch delay in pre-TRIPS India". *European Journal of Health Economics*. 14(5):761-773. 2013. DOI: 10.1007/s10198-012-0422-7 (with Thomas Brenner)
7. "A Game theoretic model of drug launch in India". *Health Economics, Policy and Law*, 1(1), pp. 23-39 (2006) (with Amit S Ray)
8. "Exporting through Technological Capability: Econometric Evidence from India's Pharmaceutical and Electrical/Electronics Firms", *Oxford Development Studies*, 32 (1), 2004 (with Amit S Ray).
9. "The Political Economy of Drug Quality: Changing Perceptions and Implications for the Indian Pharmaceutical Industry", *Economic and Political Weekly*, 38 (23), 2003. (with Amit S Ray).
10. "R&D and Technological Learning in Indian Industry: Econometric Estimation of Research Production Function", *Oxford Development Studies*, 29(2), pp 155-171, 2001. (with Amit S. Ray).

Frugal and grassroots innovations:

11. "Co-creating community-led frugal innovation: An adapted Quadruple Helix?". *Technovation*, 124, 102752. (with BR Bhattacharjya, S K Kakoty). 2023.
12. "The many facets of frugality: insights from a quasi-comprehensive literature survey". *Journal of Scientometric Research* 10 (2) 265-278. (with Shekhar Jain). 2021.

13. "Missing links in the innovation ecosystem: A critical introspection". *African Journal of Science, Technology, Innovation and Development*, 13(7), 851-852. (with Sujit Bhattacharya)
14. "Grassroots innovations in the informal economy: insights from value theory". *Oxford Development Studies*. 48 (1) 85-99. (with Fayaz Ahmad Sheikh). 2020.
15. "Policy space for informal sector grassroots innovations: towards a 'bottom-up' narrative." *International Development Planning Review* 43 (1) DOI: 10.3828/idpr.2019.34 : 115-137. (with Fayaz Ahmad Sheikh). 2021.
16. "RRI beyond its comfort zone: initiating a dialogue with the frugal innovation 'by the vulnerable'": Special Issue on Responsible Innovation in the global South. *Science Technology and Society*. 25 (2) 273-290. (Special issue editors: Wiebe Bijker et al). (with Nazia Talat).
17. "Frugality and cross-sectoral policymaking for food security". *NJAS-Wageningen Journal of Life Sciences*. Special issue on 'Institutional diagnostics for African food security: approaches, methods and implications'. February 2018. DOI: <https://doi.org/10.1016/j.njas.2017.08.002>. (with Kinsuk Mani Sinha and Peter Knorringa).
18. "Jugaad to grassroot innovation: understanding the landscape of India's informal sector innovation". *African Journal of Science, Technology, Innovation and Development*, 6 (1& 2), 2014 pp. 13-22 (with Hemant Kumar)
19. "Extrinsic and intrinsic motivations to innovate: tracing the motivations of 'grassroot' innovators in India". *Mind and Society* 10(1): 27-55, 2011 (with Hemant Kumar)

Technology Policy (IPR, institutions, and regulations):

20. Evidentiary vacuum, epistemic communities and rare disease policymaking in India: an evolutionary policy perspective. *Journal of Bioeconomics*, **24**, 133–152 (2022). <https://doi.org/10.1007/s10818-021-09322-y>
21. 'Zero-error' versus 'good-enough': towards a 'frugality' narrative for defence procurement policy. *Mind & Society*, 19:43–59. 2020 (With Kapil Patil).
22. "Intellectual property rights, social values, and innovation: a cross-country simultaneous equations model", *Economics of Innovation and New Technology*, 30:3, 295-316, DOI: [10.1080/10438599.2019.1700607](https://doi.org/10.1080/10438599.2019.1700607) (with Deep Jyoti Francis)
23. Market-based mechanism and 'climate justice': reframing the debate for a way forward. *International Environmental Agreements: Politics, Law and Economics*, 19 (4-5). 497-513. 2019. (with Manish Shrivastava)

24. “New Drugs” Approvals in India: An Institutional Perspective. *Science Technology and Society*. Special issues on “Pharmaceutical industry in the global South”. Vol 23 (3). 444-462. 2018. DOI: <https://doi.org/10.1177/0971721818762931>.
25. “Politico-historical contingencies, intellectual property rights, and economic performance across countries: A simultaneous equation system perspective”. *The Journal of World Intellectual Property*. Vol 18 (3-4). 2015. 107-126. (with D. J. Francis, D. Dutt, V. Kumar, F.A. Sheikh).
26. “Growth of Water purification technologies in the era of regulatory vacuum in India: a critical outlook”. *Current Science*. 108 (8). 1421-23. 2015 (with Aviram Sharma and Nazia Talat)
 - This research was taken up by the Indo-Asian News Service (IANS) to formulate a report, which was covered by all leading national newspapers in India, and newspapers in the Middle East, other Asian Countries and USA.
27. “Seventy-five years of National Planning Committee (1938-2013) A recollection” *Science and Culture*. 81 (3-4), 2015 pp. 66-71. (with Noklennyangla).
28. “Public understanding of participation in regulation: The case of bottled water quality standards in India” *Public Understanding of Science*. 23 (4) 2014: 670-688. DOI: 10.1177/0963662512452231, 2012 (with Aviram Sharma)
29. "An Institutional analysis of transition to market: The case of shifting cultivators in Mon, Nagaland", the special issue on 'Rural Marketing' of the *International Journal of Rural Management*, 8 (1 & 2) 2012. (with Abhinandan Saikia)

Chapters in Handbooks:

1. “Frugal innovation processes: Insights from the informal economy”. (with Ariane A Corradi, Hemant Kumar, and Fayaz Ahmad Sheikh). In. Handbook on Frugal Innovations. Edward Elgar. Forthcoming. Eds (Andre Leliveld, Saradindu Bhaduri, Peter Knorrninga, Cees van Beers)
2. Fairness institutions for frugal innovation. (with Haye Hazenberg). In. Handbook on Frugal Innovations. Edward Elgar. Forthcoming. Eds (Andre Leliveld, Saradindu Bhaduri, Peter Knorrninga, Cees van Beers)
3. Science Policy in India: the canvas and the trajectory. Forthcoming in Handbook on Indian Economy. Routledge. (Editors: Debashish Chakraborty and Anirban Biswas). (Co-authors: Shyamjit Maniram Yadav, Noklennyangla)
4. “Scientists’ motivations to innovate, catch-up and collaborate: a trans-disciplinary perspective” in Hilpert U (ed) Handbook on Politics and Technology. Rutledge. (2016)

5. "Patenting Biotechnology" in Patzelt H, and T. Brenner (eds.) Handbook of Bio-entrepreneurship, Springer (Chapter 11). Berlin (2008)

Select Book Chapters (reverse chronological order):

1. Forest Policies and Tribal Traditional Medicinal Practices: A Perspective from India: in Agarwal M and Whalley J (eds.) Sustainability of Growth of the Indian Economy; The Role of Economic, Technological and Environmental Factors. Asia and the World Series. World Scientific, Singapore. 2015. (with VK Deepa).
2. "Competing through technological capability: The case of the Indian pharmaceutical industry". In Daniel Drache and Lesley Jacobs (eds) "New Policy Spaces for a Dismal Global Economic Age: International Trade and Human Rights Linkages". Cambridge University Press. 2014. (with Amit S Ray)
3. "Surviving through Organisational Changes: Indian Pharmaceutical Industry post-Globalisation" CSK Singh Mitra PP and A. Palit (eds.) Globalisation and the Work Place, PM Bagchi, Kolkata (2006)
4. "Technological Development in Indian Industry: Challenges and Options after the East Asian Crisis", in R. Hooley & J.H.Yoo (eds.), The Post Financial Crisis Challenges for Asian Industrialization, Elsevier Science (JAI): Amsterdam, 2002. (with Amit S Ray).

Discussion/working papers:

1. "Frugal innovation in EU innovation policy" (written for DG Research and Innovation, European Commission). *Centre for Frugal Innovation in Africa working paper* no. 6. (with Peter Knorringa). 2018.
2. "Informal values and formal policies: A study of Japanese technology policy and its significance for India". *ICRIER Working Paper* (Japan Chair) No. 219 (July 2008). (with Janashruti Chandra)
3. "Past experience, cognitive frame and entrepreneurship: some econometric evidence from the Indian pharmaceutical industry", *Papers on Economics and Evolution* 0804, Max Planck Institute of Economics. (May 2008) (with Hagen Worch)
4. "Vicarious learning and socio-economic transformation in Indian trans-Himalaya", *Papers on Economics and Evolution*, 0518, Max Planck Institute of Economics, December 2005. (with K. Chandrasekhar)

Research blogs, articles and interviews in the media:

1. Covid-19: Should Europe embrace frugality? BLiss. August 2020. (with Peter Knorringa).
2. Columnist (Perspectives on Union Budget). Anandabazar Patrika (in Bengali). 2018, 2019.

3. Interview on water purification technologies. INS India. 2018.
4. Interview on Science Policies Studies in India and South Asia. Federal Ministry of Education and Research. Germany. 2017
(https://www.wihoforschung.de/wihoforschung/en/field-of-research/institutes-abroad/cssp/science-policy-studies-with-a--lities-of-india-and-south-asia/science-policy-studies-with-a--lities-of-india-and-south-asia_node.html)
5. Interview on Frugal Innovation. Het Financieele Dagblad. (in Dutch). 2016.

INVITED LECTURES:

1. Public Lecture on “Frugal Innovation Research in India: the evolving Agenda” at **Institute of Higher Studies (IHS), Vienna**. 7 February 2023.
2. Panelist, Science Summit of the **77th Session of the UN General Assembly** on “Alternative Innovation and Development Models”. 23 September 2022.
3. Invited Lecture. “Frugal innovation research in India: thematic, challenges and lessons”. 17 May. IFRIS. Paris.
4. Invited Seminar. “Locating Frugal Innovation in the Discourse on Science Diplomacy”. 19 May 2022. At a Research Symposium organized by Centre for Science Technology and Gender Studies, Friedrich Alexander University at Erlangen, Germany.
5. Speaker. Multi-stakeholder roundtable on citizen science by **DST-CPR-IISc**. 10 May, 2022.
6. Speaker. Webinar on “Preparing for new skills and employability in the post-COVID world”. Friedrich Ebert Stiftung (FES) India. 30 November, 2020.
7. Speaker, IndiaLICS webinar series on 28 Nov. 2020. “Informality, frugality and resilience: towards a ‘good-enough’ innovation system”. IndiaLICS: 28 November 2020.
8. Speaker. 20th Tuesday Lecture Series Vigyan Prasar (Department of Science and Technology, Govt of India): “Citizen science for frugal Innovation: can the pandemic create new possibilities?”. 3 November 2020. (Link: https://www.youtube.com/watch?v=vy_Ps6Ic2Us).
9. Speaker. The 'Good-enough' doctrine and a Frugality narrative of innovation regulation' in a Webinar on "Strengthening the Resilience of Indian Plural Health System: Lessons from COVID-19 Crisis". The University of Trans-Disciplinary Health Sciences and Technology (TDU). 18 November 2020.

10. Speaker. 5 Day Course Launch International Webinar. “Innovation and Development: the evolving discourses”. National Institute of Technology, Srinagar. 9 October 2020.
11. Speaker. “Science and Technology in modern Indian thought: contribution of Rabindranath Tagore”. CSTIPS, Central University of Gujarat. 12 October 2020. (link: <https://www.facebook.com/cugadmin/videos/1397526117116510>).
12. Speaker. Why Europe needs frugal innovations. Library Talk and Policy Workshop. European Commission. Brussels. 12 February 2020. (with Peter Knorringa).
13. Keynote Address: Frugal Innovation and scaling. At the Workshop on “Capturing Frugal Innovation”. Lorentz Centre. University of Leiden. Feb 11-15. 2019.
14. Special Lecture. TISS Guwahati. “Understanding Frugality”. 1 November 2018.
15. Invited speaker and Session Chair. “National seminar on “Contemporary debates on science, technology and nationalism in India. H&SS. IIT Guwahati. 31 Oct-2 Nov, 2018.
16. Resource Person. IndiaLICS Doctoral Training Programme. 19 September 2018. Thapar Institute of Management. Ambala.
17. Key Speaker, at “Session on Grassroots Innovation”, Jointly Organised by the PARTOS, ISS, The Hague and the Prince Clause Chair Curatorium. 21 November, 2017. ISS, The Hague.
18. Invited Lecture on “Frugality, vulnerability and innovation” at the International Conference on “Burning fields, biofuels and bettering farm life: pursuing RRI through mutual learning”. Organised Jointly by Maastricht University and IIT Delhi. 11-13 Sept. 2017.
19. Key speaker at the 2-Day Symposium on Grassroots Innovation, organised by the National Research Institute on Science Policy, Ministry of Science and Technology, Government of Iran. Tehran. 15-16 February 2017.
20. Invited Lecture on “Frugal innovation in development policy: a conjectural roadmap’. At the Ministry of Foreign Affairs, Government of the Netherlands. The Hague. 13 December, 2016.
21. Invited Lecture on “Bottom-up frugal innovations: the issues of motivation, scale and co-creation. Enviu. Rotterdam. 5 July, 2016.
22. Lecture, Orientation Course for College and University Teachers in India, ASC, JNU, 1 March 2016

23. Lecture, Refresher Course for College and University Teachers in India, ASC, JNU, 23 February, 2016.
24. Plenary Lecture on Sustainability issues around water purification technologies in India Regional Science Conference, Kolkata, 30 January, 2016.
25. Special Lecture, ISCTE, Lisbon, 17 December 2015.
26. Plenary Lecture, International Conference on “How can frugal innovation be inclusive”. Centre for Frugal Innovation in Africa, International Institute of Social Studies, The Hague. 25 November, 2015.
27. Invited to deliver a talk on “frugal Innovation: Environmental Issues and Appropriability Challenges” at the Workshop on IPR: Environmental and Economic Issues, Organised by the MHRD Chair on IPR, National Law University Jodhpur. 29 August, **2015**.
28. Delivered a lecture on “Innovation and economic development: micro and macro perspectives”, Department of Economics, Kashmir University. 9 July, **2015**.
29. Invited Speaker, “Understanding the ecosystem of informal grassroot innovations in India” at National Conference on Foresight and Technology Futures (NCFTF2015). Department of Future Studies, Kerala University. 19-20 March, **2015**.
30. Delivered a lecture for the 49th Refresher Course for University and College teachers of India in Political Sciences. ASC, JNU. 11 March, **2015**.
31. Delivered the Keynote address on “Frugality in innovations: a heterodox economics perspective” at First Annual Workshop of the Centre for Frugal Innovation in Africa, The International Institute of Social Studies, The Hague, The Netherlands. 5 March, **2015**.
32. Delivered a special lecture on “Self-reliance in India’s science policies: a historical-institutional sketch”, at Central University of Gujarat, 27 March, **2014**.
33. A lecture delivered on “Economics of Science Policy” in, Refresher Course for University and College teachers in India (in Economics). University of Delhi. 17 December, **2012**.
34. Delivered a lecture on “Competing through technological capability: the case of the Indian Pharmaceutical Industry” at IRD, University of Marseille on 18 May, **2012**. (with Amit S Ray).
35. Delivered 3 special lectures as Visiting Faculty (UGC Merged Scheme), Vidyasagar University, Midnapore. March **2012**.

36. Delivered two lectures on “*Institutional economics*” at the Refresher Course for University and College teachers in India (in Economics), March, **2012** at Academic Staff College, JNU.
37. Delivered a lecture on “Analysing the launches of new drugs in pre-TRIPS India” National Institute of Science Technology and Development Studies (NISTADS), New Delhi. 24 January, **2012**.
38. Delivered a lecture on “Informal values and formal policies: Japan’s technology policy” at the Institute of Chinese Studies, Delhi University. 28 October 2009.
39. Delivered a lecture on “*Institutions and technology transfer*” at the Refresher Course for University and College teachers in India (in Economics), August, 2009 at Academic Staff College, JNU.
40. Delivered a lecture on “*Transfer of Technology*” to the Probationers of Indian Statistical Service, at the Indian Institute of Planning and Administration (IIPA), February, 2007.
41. Delivered a lecture on “*Methods in Evolutionary Economics*” at the Refresher Course for University and College teachers in India (in Economics), January 2004 at Academic Staff College, JNU

Research Evaluation Committees:

- Expert. Project Evaluation Committee. **ERC. European Commission.** 2021.
- External Evaluator. Faculty Assessment Committee. **DST-NRF. South Africa** (2019, 2020)
- External, Evaluator. Project Evaluation Committee. **DST-NRF. South Africa.** (2018, 2019)
- Expert. Habilitation Committee. **University of Paris Descartes. France.** December 2018.
- Member, Advisory Committee on Status of Social Science Research in India. **ICSSR.** 2017.
- Member, Bio-Medical Ethics Committee, New Delhi. 2017.
- Member, **PhD evaluation committee:**
 - TU Delft. The Netherlands. 2020.
 - Wits University, South Africa. 2018.
 - TU, Delft. The Netherlands. 2016.
 - Technical University, Sidney, Australia. 2015.

EDITORIAL ACTIVITIES:

- **Assistant Editor, and Member Editorial Board:**
 - African Journal of Science Technology Innovation and Development (2014-).
 - Innovation and Development (2015-)
- **Editor**, CSSP working Paper Series (2014-2017), 2019-
- **Guest Editor**. Journal of Scientometric Research.
- **Guest Editor**. Science Technology and Society.

- **REFeree OF JOURNALS/CONFERENCES (Select)**
 - Qeios (open source journal).
 - Bulletin of Science Technology and Society
 - NJAS-Wageningen Journal of Life Sciences
 - Public Understanding of Science
 - Research Policy
 - World Development
 - Industry and Innovation
 - Innovation and Development
 - European Journal of Developmental Research.
 - Regulation and Governance
 - African Journal of Science Technology Innovation and Development
 - Science, Technology and Society
 - Water Economics and Policy
 - World Review of Science, Technology and Sustainable Development
 - Member, Review Committee, Danish Research Unit of Industrial Dynamics (DRUID) summer conference (2005-08)
 - Globelics Review Committee
 - IndiaLICS Review Committee

RESEARCH COLLABORATIONS/NETWORKING AND GRANTS:

- *Principal Investigator, 3-year Research Grant to study “Frugal Innovation ecosystems in India”, Funded by: Department of Science and Technology, India. (2023-2026).* (with Bibhuti Ranjan Bhattacharjya, Anup Kumar Das and Abhay kumar)
- *Principal Consultant Researcher. UNESCAP. 2021-22.* (With Biswajit Nag and Somdutta Banerjee)
- *Co-Investigator. AniPHARM (use of animals for pharmaceutical research and production).* Funded by National Research Agency. France (ANR). With Mathieu Quet (Principal Investigator) and Julia Hornberger (2022-2025)
- *Principal Research Investigator. Frugal Innovations by Science Clubs, and Makers Spaces: A study of India.* (Funded by LDE International Centre for Frugal Innovation). 2020-21.
- *Consultant.* Indian Institute of Foreign Trade. New Delhi. (**Project on India’s Technology Policy**). Funded by Department of Science and Technology. Government of India. 2019-20.
- *Co-Director. Agricultural Innovation Systems and Grassroots Innovations in India.*

(Principal Director. Hemant Kumar). ICSSR. India. 2018-2020.

- *Co-Investigator, Marie Curie Actions- International Staff Exchange Scheme (IRSES)- Crossing Boundaries: Knowledge and Technology Transfer and Innovation (FP7-PEOPLE-2012-IRSES, Project No. 318928), (with VV Krishna, Madhav Govind in India. Chief Coordinator: Christos Kalantaridis, University of Bradford, UK). 2013-16.*
- *Co-Principal Investigator in **Clinical data, Bioequivalence and Generic Drugs: Analysis from India and Brazil**, Collaborative Research project with Dr Fabienne Orsi, University of Aix Marseille and Dr Claudia Chamas, FIOCRUZ, Brazil sponsored by ANRS (The French National Agency for Research on AIDS and Viral Hepatitis), Government of France (April, 2012-April, 2014), (Principal Investigator, India: Amit S Ray)*
- *Received Editorial Assistance Grants for editing two special issues of African Journal of Science Technology Innovation and Development (Taylor and Francis). (2013-14).*
- *Principal Researcher, Political economic understanding of tobacco consumption in India. Funded and coordinated by the Voluntary Health Association of India (2009-10).*
- *Received research support grants from the Chair of Comparative Politics, Fredrich Schiller University of Jena, Germany for writing a chapter in the Routledge Handbook of Technology and Politics. 2015.*
- *Received Research grants to write a paper on “Informal values and Formal policies; the case of Japan’s technology policy and lessons for India. Coordinated by the Japan Chair of the ICRIER (Delhi), and funded by Sasakawa Foundation, Japan. (2008).*

Organizing conferences/Seminars/Workshop

- Scientific Organiser. Capturing Frugal Innovation. **NIAS Lorentz Centre Workshop**. (In collaboration with Leiden University, University of Cambridge, Stellenbosch University and University of Grenoble). 11-15 February 2019.
- Conference Chair, **IndiaLICS 2017** (Total Budget: INR 1.7 million approx.) (In collaboration with ICRIER, CSIR). 1-5 November 2017.

VISITS FOR RESEARCH MEETINGS AND FIELDWORK (excluding conferences)

- Conducted research meetings and fieldwork **in 20 states in India**.
- Belgium, Brazil, Cuba, England, Estonia, Germany, France, Kenya, Portugal, The Netherlands.

VISITING FELLOW/ACADEMIC VISITS

- Visiting Professor. IFRIS. France (13 June-8 July, 2022)
- Academic Visitor. University of Gondar, Gondar. Ethiopia. 7-9 March 2018.
- Visiting Professor, Cape Peninsula University of Technology (CPUT). Cape Town. South Africa. 27 February-6 March 2018.
- Visiting Professor, ISCTE, Lisbon, Portugal, 12-28 December, 2015.
- Academic Visitor, Tallinn University of Technology, Estonia, 15-25 June, 2013
- Visiting Faculty, Vidyasagar University, West Bengal, India, March 2012

- Visiting Fellow, Centre for Research in Economic Sociology and Innovation (CRESI), University of Essex. United Kingdom, June 2011.
- Visiting Faculty, Central University of Gujarat, India, November 2009.
- Visiting Fellow, Evolutionary Economics Group, Max Planck Institute of Economics, Jena, Germany, June-July, 2007.

Hobbies:

- Trekking (Participated in several high-altitude treks in Uttarakhand, and Himachal Pradesh, along with short duration trekking and hiking in the hills of Meghalaya, Odissa, West Bengal, and Table Mountain in Cape Town).
- Performance in Bangla Play (at SAA, JNU, Stein Auditorium, Delhi, Kala Mandir, Kolkata)
- President's Scout. 1988.