

## **Professional Experience**

### **Professor, National Institute of Advanced Studies, Bengaluru (August 2016 – till date)**

- Head (Energy, Environment & Climate Change); Dean, School of Natural Sciences & Engg.
- Guide PhD students in interdisciplinary research & coordinate NIAS Sr. Executive Program.
- Member, Inter-ministerial Working Group 4 (Critical Minerals) and WG 2B (Industry) constituted by NITI Aayog to develop Pathways for meeting India's Net Zero commitment.
- Member, Technical Advisory Committee on Climate Change constituted by MOEFCC.
- Member, Expert Group constituted by NITI Aayog for a Comprehensive Study on the Role of Coal Scenario in India till 2050.
- Member, Task Force constituted by the Ministry of Coal to develop an Integrated Approach to Mining and Environment for Opencast Coal Mines.
- Conducted policy-focused research related to the Coal, Thermal & Nuclear Power sectors to provide actionable scientific inputs to NITI Aayog, DAE, Principal Scientific Advisor (PSA), and the Ministry of Environment, Forest and Climate Change (MoEFCC).

My scientific inputs and policy advocacy have also contributed to GOI's decision to: (i) Enhance Power Generation capacity based on low-Sulphur Indian coal, (ii) declare Coking Coal as a Critical Mineral, (iii) liberalize the Nuclear Power sector (SHANTI Act) (iv) sanction Small Modular Reactors (SMRs) for a Coal-to-Nuclear Transition, and (v) amend MOEFCC Notification to optimize the deployment of Flue Gas Desulphurisers in Thermal Power Plants.

### **Director, Thiess Group, Kolkata, December 2010 – December 2015**

- Ensured Board governance and Implementation of Risk Management practices
- Implemented award-winning Community Development program in a sensitive area
- Played lead role in successful conclusion of International and Domestic Arbitrations

### **General Manager, Tata Steel, Jamshedpur, India, September 2006 – November 2010**

- Conceptualized and Executed expansion projects with an outlay of Rs. 15,000 Million to double capacity of Tata Steel's iron ore mining, processing, and logistics facilities
- Implemented Green projects like Rainwater harvesting and Solar power in mining projects
- Managed a Rs. 4000 Mi Cost Center to meet 100% of iron ore needs of Tata Steel

### **Chief, Tata Steel, West Bokaro and Jamshedpur, India, May 2001 – August 2006**

- Developed Feasibility Study for Tata Steel's proposed 10 Mt coal project in Bangladesh
- Convinced Government of Bangladesh to introduce a policy for opencast coal mining
- Led Tata Power Task Force to enhance generation capacity from 2,000 MW to 12,000 MW

### **Divisional Manager, Tata Steel, West Bokaro, Jharkhand, February 1997 – April 2001**

- Implemented schemes to retain 50% share for West Bokaro coal in Jamshedpur Steel Plant
- Developed & implemented innovative ideas in a coal mining project for the first time in India
- Conceptualized & implemented India's first GPS-based Truck Dispatch System in 2001.

### **Research Assistant, Penn State University, USA, August 1990 – December 1996**

- Research on Health & Safety while assisting in Mine Ventilation & Mineral Investments

### **Assistant Manager, Western Coalfields Ltd., Nagpur, July 1984 – July 1990**

- Implemented innovative ideas to create industry records in underground coal mining

## **Education**

- General Management, European Center for Executive Development, France ▪ 1999-2000.
- Dual Title PhD in Mining Engineering and Operations Research – Pennsylvania State University, University Park, USA ▪ 1996
- Master of Science in Mining Engineering - Pennsylvania State University, USA ▪ 1993
- Bachelor of Technology in Mining Engineering – Indian School of Mines, Dhanbad ▪ 1984
- Strategic Leadership Development – Tata Management Development Centre, Pune ▪ 2008

## **Research Projects**

- Tata Steel Ltd. (Value: Rs. 25 Lakhs) – completed.  
*Study of Learning and Development/Talent Management processes at ISRO*
- Science & Engineering Research Board, GOI (Value: Rs. 747 Lakhs) – completed.  
*Interdisciplinary forays into Human-Environment interactions.*
- Department of Science & Technology, GOI (Rs. 151 Lakhs) – completed.  
*To develop an Integrated Approach to Development and Environment in the Power Sector.*
- Nuclear Power Corporation of India Ltd. (Value: Rs. 23.36 Lakhs) – completed.  
*Study on the Role and Economic Viability of Nuclear power in India.*
- Ministry of Earth Sciences, GOI (Value: Rs. 318 Lakhs) – completed.  
*To understand the interaction between components of Earth and Human Systems at various spatial and temporal scales.*
- Board of Research in Nuclear Sciences. (Value: Rs.25.76 Lakhs) – completed.  
*Identification of Potential Sites for Nuclear Power Plants for a Sustainable Energy Mix.*
- NITI Aayog (Value: Rs. 24.99 Lakhs) – completed.  
*Enhancing domestic coking coal availability to reduce the import of the coking coal*
- Ministry of Environment, Forest & Climate Change. (Value: Rs. 9.44 Lakhs) – completed.  
*Information on coal for India's Third National Communication to the UNFCCC.*
- Office of the Principal Scientific Advisor, GOI (Rs. 98.98 Lakhs). Interactions between Energy Security, Environment, and Climate Change. – ongoing.
- International Sustainable Energy Foundation (US \$99,000). *Small Modular Reactors to Achieve Net Zero with Energy Security for India.* – ongoing.
- Tata Power (Value: Rs. 112 Lakhs). *Site Selection for Nuclear Power Plants.* Ongoing.
- Reliance Industries (Value: Rs. 81 Lakhs). *Site Selection Studies for Bharat Small Reactors.*
- Multiple private companies. *Site Selection Studies for Nuclear Power Plants.*
- Indian Institute of Tropical Meteorology, Ministry of Earth Sciences, GOI. (Value: Rs. 2.468 Crores). *Impact Assessment of "Weather and Climate Services" of the India Meteorological Department (Phase 1: Agrometeorological Advisory Services)* – Ongoing.

## **Select Publications**

### **In SCI Journals**

- Juhi Chatterjee, Rakesh, N.G., Tejal Kanitkar, and **R Srikanth** (2025). Impact of the COVID-19 lockdown on agriculture in a rainfed region in India: Lessons for dealing with natural and economic shocks. *IIMB Management Review*. Vol.37(4). <<https://doi.org/10.1016/j.iimb.2025.100620>>
- Dhanya, G., **R. Srikanth**, & Aariz Ahmed (2025). Spatial and temporal variations of temperature and rainfall, and land use/land cover changes in the Bengaluru urban district. *Mausam*. Vol. 76(2). Pp. 449-470. <<https://doi.org/10.54302/mausam.v76i2.6620>>
- Rakesh, N.G., Tejal Kanitkar, and **R Srikanth** (2025). Evaluating the impact of agrometeorological advisory services on crop yields using propensity score matching

method in Karnataka's rainfed regions. *Mausam*. Vol. 76(2). Pp. 521-550.

<<https://doi.org/10.54302/mausam.v76i2.6670>>

- Ghosh, T., Kanitkar, T., & R **Srikanth**. (2025). Enhancing Inclusiveness and Sustainability: Impact of Accessibility and Affordability on Public Transportation in an Indian megacity. *Sustainable Transport and Liveability*.  
<https://doi.org/10.1080/29941849.2025.2449830>
- Das, S.S., Majumdar, R., Krishnan, A.V., and **Srikanth**, R. (2024). Exploring urban water-energy nexus: A study of thermal power plants in Raichur & Ballari districts in Karnataka. *Natural Resources Forum*. Vol. 1-31. <<https://doi.org/10.1111/1477-8947.12507>>
- Ahmed, A., Chatterjee, J., Nannewar, R. G., & **Srikanth**, R. (2024). Fulfilling Domestic Water Demand in Semiarid Regions of North Karnataka: Challenges & Way Forward. *Int'l Journal of Rural Management*. <<https://doi.org/10.1177/09730052241236075>>
- Rakesh, N.G., Tejal Kanitkar, and **R Srikanth** (2023). Role of Agrometeorological Advisory Services in Enhancing Food Security and Reducing Vulnerability to Climate Change. *Weather, Climate, and Society*. <<https://doi.org/10.1175/WCAS-D-22-0130.1>>.
- Tanmay Ghosh, Tejal Kanitkar, and **R Srikanth** (2023). Affordable and Sustainable Transportation: Key drivers and Policy choices for a megacity in India. *Case Studies on Transport Policy*. Vol.48. Article 101061. <<https://doi.org/10.1016/j.cstp.2023.101061>>
- Soumya Deep Das and **R. Srikanth** (2023). A Balanced Scorecard to enable Electricity Distribution Sector Reforms in India. *The Electricity Journal*. Volume 36 (6). 107302. <<https://doi.org/10.1016/j.tej.2023.107302>>
- Aariz Ahmed and **R Srikanth** (2023). Application of Geospatial techniques and the MCDM method to optimize Interlinking of Rivers in India. *J Indian Soc Remote Sens*. Vol.51. pp. 849-863. <<https://doi.org/10.1007/s12524-023-01672-6>>
- Lavanyaa, V.P., Harshita, K.M., Beig, G., and **R. Srikanth** (2023). Background and baseline levels of PM<sub>2.5</sub> and PM<sub>10</sub> pollution in major cities of peninsular India. *Urban Climate*. Vol.48. Article 101407. <<https://doi.org/10.1016/j.uclim.2023.101407>>
- Tanmay Ghosh, Tejal Kanitkar, and **R Srikanth** (2022). Assessing equity in public transportation in an Indian city. *Case Studies in Transport Policy*. Vol. 10 (4). pp. 2337-2349. <<https://doi.org/10.1016/j.cstp.2022.10.007>>
- Chanchal Chauhan, Aariz Ahmed, and **R Srikanth** (2022). Application of Vegetation Index to Assess the Sustainability of Coal Mines in India. *Asian Journal of Water, Environment and Pollution*. Vol. 19, No. 5. pp. 11-21.  
<<https://doi.org/10.3233/AJW220066>>
- Lavanyaa V.P, Varshini S, Souvik Sankar Mitra, Kiran M. Hungund, Rudrodip Majumdar, and **R Srikanth** (2022). Geospatial modelling for estimation of PM<sub>2.5</sub> concentrations in two megacities in peninsular India. *Aerosol Air Qual. Res*. Vol. 22. No. 7. 220110.  
<<https://doi.org/10.4209/aaqr.220110>>
- Harsh Kamath, Chanchal Chauhan, and **R Srikanth** (2022). A Study of Air Quality in the Coalfields of NSW, Australia and Telangana, India. *J Indian Soc Remote Sens* 50, 1713-1723. <<https://doi.org/10.1007/s12524-022-01557-0>>
- Sinha, S.K., **R. Srikanth**, & Sudha Mahalingam (2022). Regulatory framework for India's energy security and sustainability. *Energy Policy*. Vol. 162. Article 112815.  
<<https://doi.org/10.1016/j.enpol.2022.112815>>
- Harsh G. Kamath, Rudrodip Majumdar, A. V. Krishnan, & **R. Srikanth** (2022). Cost and environmental benefits of coal-concentrated solar power (CSP) hybridization in India. *Energy*. Vol. 240. <<https://doi.org/10.1016/j.energy.2021.122805>>

- Singh, J., **Srikanth, R.**, and Ramasesha, S.K. (2021). Dispersion of Particulate Matter and Sulphur Oxides from Thermal Power Plant: A case study. *Environ Model Asses*. Vol. 26 763-778. <<https://doi.org/10.1007/s10666-021-09790-6>>
- Sarvajeet Kumar Sinha, H.S.K. Nathan, and **R Srikanth** (2021). Why India needs a Coal Mines Environment Authority. *Economic & Political Weekly*. Vol. LVI. No. 51. pp. 32-38.
- Soumya Deep Das & **Srikanth, R.** (2020). Viability of Power Distribution in India – Challenges & Way Forward. *Energy Policy*. Vol 147. <<https://doi.org/10.1016/j.enpol.2020.111882>>
- Jayant Singh and **R Srikanth** (2020). *The current scenario of the polymetallic nodules program in India*. MGMI News Journal. 47(1). pp. 35-38.
- Tejal Kanitkar, Sudha Mahalingam, and **R Srikanth** (2020). Electricity (Amendment) Bill, 2020: Inviting a Bigger Crisis. *Economic and Political Weekly*. Vol. LV. No. 41. pp. 40-45.
- **Srikanth, R.** (2018). Role of Electric Mobility in a Sustainable, Energy-Secure Future for India. *Current Science*. Vol. 114 (4). pp. 732-739. <<http://www.currentscience.ac.in/Volumes/114/04/0732.pdf>>
- **Srikanth, R.** (2018). India's Sustainable Development Goals–Glide Path for India's Power Sector. *Energy Policy*. Vol. 123. pp. 325. <<https://doi.org/10.1016/j.enpol.2018.08.050>>
- **R Srikanth** and Hippu Salk Kristle Nathan (2017). Towards Sustainable Development: Planning Surface Coal Mine Closures in India. *Contemporary Social Science*. Vol. 13. No. 1. pp. 30-43. <<https://doi.org/10.1080/21582041.2017.1394484>>
- **Srikanth, R.** (2018). India's Steel Industry – *quo vadis?* *Current Science*. Vol. 114 (2). pp. 243-243. <<http://www.currentscience.ac.in/Volumes/114/02/0243.pdf>>
- **Srikanth, R.** (2017). Why India needs a National Electricity Council, *Current Science*. Vol.113 (7). pp. 1233-1241. <<http://www.currentscience.ac.in/Volumes/113/07/1233.pdf>>
- **Srikanth, R.**, & Ramani, R. V. (1996). Single-breakage studies to determine the relationships between respirable dust generation and coal seam characteristics. *Applied occupational & environmental hygiene*. <https://doi.org/10.1080/1047322X.1996.10389955>
- **Srikanth, R.**, Suboleski, S. C., Miola, W., & Ramani, R. V. (1995). Contribution of shield movement to airborne dust levels in longwall faces. *Mining Engineering*, 47.

### Book Chapters, Research Reports, and International Conference Publications

- Sherin S Das, Rudrodip Majumdar, A.V. Krishnan and **R. Srikanth** (2025). Assessing water consumption in Indian thermal power plants and parametric strategy for optimal usage: An explanatory approach using machine learning algorithms. In: *Water Use Efficiency, Sustainability and The Circular Economy*. <[10.1016/B978-0-443-26749-9.00018-1](https://doi.org/10.1016/B978-0-443-26749-9.00018-1)>.
- Rudrodip Majumdar, Raja Ram Singh Yadav, A.V. Krishnan, & **R. Srikanth** (2025). *Technological Assessment of Select Large Light Water Reactors to Accelerate Nuclear Power Expansion in India*. NIAS Report. NIAS/NSE/EECP/R/RR/01/2025. 74 pp.
- **Srikanth, R.** A.V. Krishnan, & Dizna James (2024). *Economic, Environmental, and Climate Impacts of FGDs in Thermal Power Plants in India*. NIAS Report. NIAS/NSE/EECP/U/RR/15/2024. 53 pp.
- Rudrodip Majumdar, Raja Ram Singh Yadav, A.V. Krishnan, & **R. Srikanth** (2024). *Technology Assessment of select Small and Modular Reactors to achieve Net Zero with Energy Security in India*. NIAS Report. NIAS/NSE/EECP/U/RR/14/2024. 92 pp.
- **R. Srikanth** (2024). *Enhancing domestic coking coal availability to reduce the import of coking coal*. NIAS Report. 81 pp. <<https://www.niti.gov.in/report-and-publication>>
- Srikanth, R. and Bhatt, J.R. (2023). Why India needs Coal for its Sustainable Development? OSF Preprint. <<https://doi.org/10.31219/osf.io/f6dhe>>

- Vamshij, J., Dutta, K., Paul, A., Varshini, S., Majumdar, R., Krishnan, A.V., & **R. Srikanth** (2023). Identification of Potential Sites for Nuclear Power Plants for a Sustainable Energy Mix. NIAS Report. NIAS/NSE/EECP/R/RR/19/23. 210 pp.
- V. P. Lavanyaa, **R. Srikanth**, S. Varshini, and K. M. Harshitha (2023). *Geospatial modelling for estimation of PM<sub>2.5</sub> concentrations in Major cities of Peninsular India*. NIAS Report. NIAS/NSE/EECP/U/RR/03/23. 64 pp.
- Sudha Mahalingam, **R. Srikanth**, & Soumya Deep Das (2022). *Power Distribution Sector Reforms in India - Role of Regulators & Private Sector*. NIAS/NSE/EECP/U/WR/20/2022.
- Nikhil Thejesh, Shyam Sundar, R., A.V. Krishnan, and **R. Srikanth** (2021). *Transition Plan for an Integrated Approach to Development and Environment in the Power Sector*. NIAS Report NIAS/NSE/EEP/U/RR/14/2021.48 pp.
- Chanchal Chauhan, Aariz Ahmed, ... & **R Srikanth**, (2021). *Sustainability Pathways to Energy utilization: State of the environment in the Ramagundam & Dorli-Bellampalli coal mines*. NIAS Report. NIAS/NSE/EEP/U/RR/07/2021. 66 pp.
- Sarvajeet Kumar Sinha and **R. Srikanth** (2021). *Sustainability Pathways to Energy Utilisation: Improving the environmental governance of coal mines in India through a unified authority*. NIAS Report. NIAS/NSE/EEP/U/RR/06/2021. 72 pp.
- **R. Srikanth** (2020). *Coal Mining Technology & Practices in India. Future of Coal in India: Smooth Transition or Bumpy Road Ahead?* R. Tongia, A. Sehgal, & Kamboj (eds.).
- A V Krishnan... & **R Srikanth** (2019). *Clean Coal Technologies to comply with New Emission Norms for Thermal Power Plants*. NIAS Report. NIAS/NSE/EEP/U/WR/13/2019.
- O'Brien, M.D., **Srikanth, R.**, Vidale, A.L. and Springett, G.M. (2010). Planning the Kotre Basantpur-Pachmo Coking Coal Mine. *Mine Planning & Equipment Selection Symposium*. pp 533-546. Australasian Institute of Mining & Metallurgy.
- Shambhu Sharan, **R. Srikanth**, et al. (1997). Dust Contamination of Panel/Face Intake Air. *6<sup>th</sup> Intl. Mine Ventilation Congress*. Society for Mining, Metallurgy & Exploration, USA.
- **Srikanth, R.** and Ramani, R.V. (1997). Relationships between coal properties and respirable dust generation potential-II. *Proceedings of the 6<sup>th</sup> International Mine Ventilation Congress*. pp 367-373. Society for Mining, Metallurgy & Exploration, USA

### Policy Briefs

- **R. Srikanth** & Shailesh Nayak (2023). Small Modular Reactors to Achieve Net Zero with Energy Security in India. NIAS Policy Brief No. NIAS/NSE/EECP/U/PB/20/2023.
- **R. Srikanth** & A V Krishnan (2020). Transition Plan for Thermal Power Plants in India. NIAS Policy Brief. No. NIAS/NSE/EEP/U/PB/172/2020.
- **R. Srikanth** (2023). SMRs to achieve SDG 7 & Net Zero Emissions. G20 Policy Brief.

### Popular Press (select articles)

- **R. Srikanth** (2023). Can small modular nuclear reactors help India achieve net-zero? The Hindu. 10 August.
- **R. Srikanth** (2022). Coal isn't easy to exclude from sustainable development. The Hindu. 21 November
- **R Srikanth** (2020). Costly solution: Careful on flue gas desulphurisers. Financial Express. 27 July.