



## Arnab Sain

ASSISTANT PROFESSOR

Department of Geology  
Faculty of Natural & Mathematical Sciences

☆ 86/1, College Street  
Kolkata - 700 073

✉ arnab.geol@presiuniv.ac.in

### PROFILE

I have worked on the structure and genesis of A-type granites, focusing on their tectonic setting and petrogenesis. Currently, my work is centered on the genesis of the giant quartz reef of the Bundelkhand Craton, with particular emphasis on field relationships, microstructural analysis, and geochemical characterization. My broader research interests lie in understanding crustal processes through the integration of structural geology and geochemistry.

### INTERESTS

\* Structural geology, Geochemistry

## ACADEMIC PROILE



### QUALIFICATIONS

Ph.D (Indian Statistical Institute, Kolkata)  
M.Sc (Indian Institute of Technology, Kharagpur)  
B.Sc (Presidency Collage, Kolkata)

### EXPERIENCES

Project associate, Indian Statistical Institute, Kolkata, 203, B.T. Road, Baranagar, Kolkata-700108 (01-11-2017 - 31-03-2018)

### PUBLICATIONS

Journal Articles: 8  
Book Chapters: 1

### LINKS

Research gate: [https://www.researchgate.net/profile/Arnab-Sain?ev=hdr\\_xprf](https://www.researchgate.net/profile/Arnab-Sain?ev=hdr_xprf)  
google scholar: <https://scholar.google.co.in/citations?user=-kwAWLkAAAAJ&hl=en&oi=sra>

---

## PRESIDENCY UNIVERSITY KOLKATA



Hindoo College (1817-1855), Presidency College (1855-2010)  
86/1, College Street, Kolkata – 700 073, Phone: (033) 2241 1960, Fax: (033) 22412738

## PUBLICATIONS

### Articles in Research Journals

1. Sanyal, S., Sain, A., Rastogi, A. K., Sahoo, G., & Hazra, D. (2025). High-K granites from the bundelkhand craton: petrogenesis and geodynamic implication during the NeoArchaean time. *Proceedings of the Indian National Science Academy*, , 1-24. doi: <https://doi.org/10.1007/s43538-025-00492-1>.
2. Shantanu Datta, Arnab Sain, Suparna Goswami, Parthasarathi Ghosh, Concepción Arenas Abad (2024). Origin of ferruginous coated grains in the Lower Jurassic palustrine limestones of the Pranhita Godavari Basin, India. *The Depositional Record*, 11(1), 44-69. doi: <https://doi.org/10.1002/dep2.285>.
3. Hossain, M. S., Ao, S., Mondal, T. K., Sain, A., Khan, M. S. H., Xiao, W., Zhang, P., & Cheng, F. (2022). Understanding the deformation structures and tectonics of the active orogenic fold-thrust belt: Insights from the outer indo-burman ranges. *Lithosphere*, 2022(1), 0-0. doi: <https://doi.org/10.2113/2022/6058346>.
4. Sain, A., & Saha, D. (2022). Overlapping A-type and S-type characters in late-to post-tectonic granites petro-tectonic evolution of late Mesoproterozoic Andhra Konda granite, Nellore Schist Belt, southern . *Journal of Earth System Science*, 131(2), 137-0. doi: <https://doi.org/10.1007/s12040-022-01889-y>.
5. Mondal, T. K., Chowdhury, A., Sain, A., & Chatterjee, S. (2022). Understanding the maturity of columnar joints and its spatial relationship with eruptive centre: A critical appraisal from the Rajmahal basalt, India. *Physics of the Earth and Planetary Interiors*, 326, 0-0. doi: <https://doi.org/10.1016/j.pepi.2022.106867>.
6. Saha, D., & Sain, A. (2019). Multiple convergences along an Archean craton margin: Clues from Proterozoic ophiolite remnants, granites and granulite domains along the SE margin of India. *Journal of Geodynamics*, 129, 44-58. doi: <https://doi.org/10.1016/j.jog.2018.04.004>.
7. Sain, A., & Saha, D. (2018). Structure and tectonics of a Mesoproterozoic ophiolite insight from Kanigiri Ophiolite with a mélangé zone, southern India. *Tectonophysics*, 744, 177-204. doi: <https://doi.org/10.1016/j.tecto.2018.06.017>.
8. Sain, A., Saha, D., Joy, S., Jelsma, H., & Armstrong, R. (2017). New SHRIMP age and microstructures from a deformed A-type granite, Kanigiri, Southern India: constraining the Hiatus between orogenic closure and postorogenic rifting. *The Journal of Geology*, 125(2), 241-259. doi: .

### Book Chapter Contributions

1. Saha, D., Sain, A., Nandi, P., Mazumder, R., & Kar, R. (2015). Tectonostratigraphic evolution of the Nellore schist belt, southern India, since the Neoproterozoic. In R. Mazumder & P.G. Eriksson (Eds.), *Precambrian basins of India: stratigraphic and tectonic context* (pp. 269-282). London: Geological Society of London.

### Conference Presentations

1. Sain, A., Saha, D., Joy, S., Jelsma, H. & Armstrong, R., (2016, August 27 - September 04). *New SHRIMP age and microstructures from a deformed A-type granite, Kanigiri, southern India: constraining hiatus between orogenic closure and post-orogenic rifting* [Conference Session]. 35th International Geological Congress, Captown, South Africa. .
2. Sain, A., & Saha, D (2014, October 29-31). *Deformation of microgranular enclaves in syn-to post collisional granites-example from granitic plutons in the central Nellore Schist Belt, Southern India* [Poster Presentation]. Rock Deformation and Structures (RDS-III), Dibrugarh university, India. .
3. Sain, A., & Saha, D (2014, March 27-29). *Mesoproterozoic Ophiolitic mélangé and granitoids in the Nellore Schist Belt, South India* [Poster Presentation]. Magmatism, Tectonism and Mineralization, Nainital, India. .
4. Sain, A., & Saha, D (2013, November 28 - October 29). *Microstructures of Kantamvaripalle Granite, Nellore Schist Belt, Southern India – Tectonic Implications* [Poster Presentation]. Modern Geological and Geophysical Methods and Their applications (MGGMTA), Jadavpur university, India. .
5. Sain, A., & Saha, D (2012, October 01-03). *From L>S fabric to L-S fabric in a shallow crustal alkaline pluton from the Nellore Schist Belt – implications for emplacement tectonics and orogenic deformation* [Poster Presentation]. Rock Deformation and Structures (RDS-II), Lucknow University, India. .
6. Saha, D., Sain, A., & Nandi, P. (2011, September 22-24). *Structures in parts of Nellore schist belt and clues to tectonic evolution of the SE margin of India in the Proterozoic* [Conference Session]. Geodynamics and

metallogenesis of the Indian lithosphere, Banaras Hindu Univer, India. .

## RESEARCH

### Research Projects

1. Arnab Sain (PI) (2023). Ongoing SERB funded project titled *A Structural and Petro-geochemical appraisal of giant quartz veins of the Bundelkhand Craton, India: finding the link between regional deformation and fluid-rock interaction*. Rs. 1000 Lakh. 21 December 2023 - 20 December 2026 [SUR\_2022\_002544]

### Other Research Guidance

SL	Researcher	Fellowship	Level	Research Title	Period	Status
1.	Sk. Ramij	No	Postgraduate	Understanding the Formation of Giant Quartz Reefs through Field, Petrography, and Geochemical Studies around Khajuraho region, Bundelkhand Craton, India	01-08-2022 - 30-06-2024	Completed
2.	Sk. Shakil Murad	No	Postgraduate	Field and petrographic study of younger dykes in the Chaibasa, from Ghatsila region, Jharkhand, India	01-08-2020 - 30-06-2022	Completed
3.	Diganta Roy	No	Postgraduate	Analysis of fold geometry of the Udaigiri Group and Kanigiri Ophiolite, Nellore Schist Belt, Southern India	01-08-2019 - 30-06-2021	Completed
4.	Barun Kuiry	No	Postgraduate	DEFORMATION STRUCTURES ASSOCIATED WITH SOUTH PURULIA SHEAR ZONE WITH SPECIAL EMPHASIS ON CHOTANAGPUR GRANITE GNEISS COMPLEX AROUND MANBAZAR, PURULIA, WEST BENGAL	01-08-2018 - 30-06-2020	Completed