



UNIVERSITY OF CALCUTTA

FACULTY ACADEMIC PROFILE/ CV

1. **Full name of the faculty member:** DR. SANTANU BOSE
2. **Designation:** ASSISTANT PROFESSOR
3. **Specialisation:** STRUCTURAL GEOLOGY
4. **Passport size photograph:**



5. **Contact information :**

Ballygunge Science College, Department of Geology, University of Calcutta, 35,
Ballygunge Circular Road, Kolkata – 700019, Email: bose.santanu@gmail.com

6. **Academic qualifications:**

College/ university from which the degree was obtained	Abbreviation of the degree
Jadavpur University, West Bengal	Ph.D
Jadavpur University, West Bengal	M.Sc.
Gauhati University, Assam	B.Sc.

7. **Positions held/ holding:**

2005-present. Assistant Professor. University of Calcutta
2002-2005. Postdoctoral Fellow, University of Lisboa, Portugal

8. **Research interests:**

- Structural Geology and Tectonics of orogenic belts.
- Analogue and Numerical modeling.

9. **Research guidance :**

Number of researchers awarded Ph.D degrees: 1

10. **Projects:**

Completed projects:

1. Physics of the development of different structures in Earth's lithosphere: Experimental studies and Natural Examples. 2006 – 2009 (Funded by DST, India)
2. Interpretation of multiple deformations in the Eastern Himalaya: A kinematic correlation with orogenic movements. (2011 - 2014) (Funded by DST, India)

Current projects:

1. Kinematic transitions at the plate contact deformations during the Himalaya-Tibet collision. (Funded by SERB, DST- Govt. of India)

11. **Select list of publications:**

a) **Journals: (2012- onward)**

12. Saha, P., Bose., S., Mandal, N. **2016**. Sandbox modeling of sequential thrusting in a mechanically two-layered system and its implications in fold-and-thrust belts. (in press).Doi:j.jog.2016.05.005.
11. Ghosh, S.; Bose, S., Mandal, N. **2016**. Dynamic recrystallization mechanisms and their transition in the Daling Thrust (DT) zone, Darjeeling-Sikkim Himalaya. *Tectonophysics*, 674, 166 – 181.
10. **Bose, Santanu**; Saha, P.; Mori, J.; Rowe, C.; Ujiie, K; Chester, F.M.; Conin, M.; Regalla, C.; Kameda, J.; Toy, V.; Kirkpatrick, J.; Remitti, F.; Moore, J.C.; Wolfson-Schwehr, M.; Nakamura, Y.; Gupta, A. **2015**. Deformation structures in the frontal prism near the Japan Trench: Insights from Sandbox Models, *Journal of Geodynamics*, 89, 29-38. DOI: 10.1016/j.jog.2015.06.002.
9. Dasgupta, Sujoy; Mandal, N.; **Bose, S. 2015**. How far does a ductile shear zone permit transpression? In: *Ductile Shear Zones: from micro-to macro-scales* (edited by S. Mukherjee and K.F. Mulchrone), John Wiley & Sons.
8. Mandal, N.; **Bose, S.**;Baruah, A.; Sarkar, S. **2015**. First-order topography of the Himalayan Mountain belt: a deep-crustal flow analysis. In: Mukherjee, S., Carosi, R., van der Beek, P. A., Mukherjee, B. K. & Robinson, D. M. (eds) *Tectonics of the Himalaya*. Geological Society, London, Special Publications, 412, <http://dx.doi.org/10.1144/SP412.9>.
7. Kirkpatrick, J. D.; Rowe,C.; Ujiie, K.; Moore, J.C.; Regalla, C.; Remitti, F.; Toy, V.; Wolfson- Schwehr, M.; Kameda, J.; **Bose, S.**; Chester. F. **2015**. Structure and lithology of the Japan Trench subduction plate boundary fault. *Tectonics*, DOI: 10.1002/2014TC003695.

6. **Bose, Santanu**; Mandal, N.; Saha, P.; Sarkar, S.; Lithgow-Bertelloni, C. **2014**. Thrust initiation and its control on tectonic wedge geometry: an insight from physical and numerical models. *Journal of Structural Geology*, 67, 37 – 49.
 5. **Bose, Santanu**; Mandal, N.; Acharyya, S.K.; Ghosh, S.; Saha, P. **2014**. Orogen-Transverse tectonic window in the Eastern Himalayan fold belt: A superposed buckling model. *Journal of Structural Geology*, 66, 24 – 41.
 4. Marques, F.O., Mandal, N., Taborda, R., Antunes, J.V., **Bose, Santanu**, **2014**. The behaviour of deformable and non-deformable inclusions in viscous flow. *Earth Science Review*, 134, 16 – 69.
 3. Frederick M. Chester, Christie Rowe, Kohtaro Ujiie, James Kirkpatrick, Christine Regalla, Francesca Remitti, J. Casey Moore, Virginia Toy, Monica Wolfson-Schwehr, **Santanu Bose**, Jun Kameda, James J. Mori, Emily E. Brodsky, Nobuhisa Eguchi, Sean Toczko, and Expedition 343 and 343T Scientists. **2013** Structure and Composition of the Plate-Boundary Slip Zone for the 2011 Tohoku-Oki Earthquake. *Science*, 342, 1208-1211.
 2. Lin W., M. Conin, J. C. Moore, F. M. Chester, Y. Nakamura, J. J. Mori, L. Anderson, E.E. Brodsky, H. Eguchi, B. Cook, T. Jeppson, M. Wolfson-Schwehr, Y. Sanada, S. Saito, Y. Kido, T. Hirose, J. H. Behrmann, M. Ikari, K. Ujiie, C. Rowe, J. Kirkpatrick, **S. Bose**, C. Regalla, F. Remitti, V. Toy, P. Fulton, T. Mishima, T. Yang, T. Sun, T. Ishikawa, J. Sample, K. Takai, J. Kameda, S. Toczko, L. Maeda, S. Kodaira, R. Hino, D. Saffer. **2013**. Stress state in the largest displacement area of the 2011 Tohoku-Oki Earthquake. *Science* v. 339 n. 6120 687-690.
 1. Saha, P, **Bose. S.** and Mandal, N. **2013**. Varying frontal thrust spacing in mono-vergent wedges: An insight from analogue models. *Journal of Earth system Science*, 122, 699 – 714.
- a) **Conference/ seminar volumes:**
Many talks and presentations
12. **Membership of Learned Societies:**
Member, The Geological, Mining and Metallurgical Society of India 2005-present
Member, Structural Geology and Tectonics Study Group of India 2009 - present
 13. **Invited lectures delivered:**
 1. *Science Awareness Programme organized by Haldia Govt. College, West Bengal :*
 2. Invited Speaker on “Antarctica: A continent for science”, 2009.
 3. *Belur College for Education, BelurRamkrishna Mission*
 4. *Invited Speaker for INSPIRE PROGRAMME (DST) organized for school students.*

14. Awards :

1. Fellow, West Bengal Academy of Science and Technology (**WAST**)
2. Recipient of Endeavour Fellowship, 2015 from **Ministry of Education, Australia**
3. National Geoscience Award (Basic Geoscience), 2013 from **Ministry of Mines, Govt. of India.**
4. Award of GSI Sesquicentennial Commemorative Lecture **by The Asiatic Society, Calcutta, 2014**
5. Royal Society Visiting Fellow for 8 weeks 2010



Signature of the faculty member

Date: 11/07/2016