

Deepak Kumar Tiwari

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Education:

- Bachelor of Science in Geology (Hons.), Patna Science College, Patna, Bihar, 2012-2015
- Master of Science in Geology, Rashtrasant Tukadoji Maharaj Nagpur University, Maharashtra, India, 2015-2017.
- Doctor of Philosophy (Ph.D.), National Institute of Technology Rourkela, 2019 - *present*.

Research Interest

Everyone wakes up in the morning hoping to achieve something in life. For me, it is my strong desire to contribute to the society that keeps me going every day. I believe the best way to do that is by increasing our collective understanding of the earth's mechanisms and how we can maximize its potential to complement and improve our lives. Phenomena such as earthquakes, tsunamis, landslides and rock slope instability are still unpredictable. Study of mechanical processes along the subduction zone and the earthquake mechanics is the area, I am passionate about. My fascination for earth sciences and wanting to contribute to society are the reasons why I decided to pursue my research in the field of earthquake studies. I am trying to understand earthquake cycle and its interaction with episodic slow slip event for my doctoral degree. It involves mechanical aspects of subduction zone tectonic based on rate state friction model as well as the role of structural and frictional asperities along the contact surface. My work consisted of numerical modeling and FEM analysis using software platforms namely, ANSYS, MATLAB, and QDYN. I also preform friction experiment to understand the Rate State Friction law and its application in earthquake nucleation process.

Conference Presentations:

- **Tiwari, D.K.**, Sinha, N., and Singh, A.K., Prediction of Time of Failure of a Rock Slope. International Congress on Computational Mechanics and Simulation. IIT Mandi, 2019.
- Sinha, N., **Tiwari, D.K.**, Singh, A.K., and Vasudeo, A.D., The Effect of Dilatancy, Thermal-Pressurization and Hydraulic Diffusivity on Stick-Slip Instability and Rock Slope Failure. 4th Indian Conference on Applied Mechanics. IISc Bangalore, 2019.

- **Awards and Grants:**

2019:	Qualified GATE: 2019 (Rank-814)
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