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Dr. JOY KUMAR MONDAL

Objective Aspiring academic looking for possibilities in academia, with a strong passion for research, teaching and contributing to the advancement of knowledge.

Experience

October, 2023 to till date	Dream Institute of Technology Asst. Prof. of Civil Engineering Department
April. 2023 –Oct. 2023	Swami Vivekananda University Asst. Prof. Of Civil Engineering Department
Feb .2023 – April. 2023	IIT Guwahati, RnD Junior research fellow
Feb.2019 – April. 2019	NPTEL Teaching Assistant
Feb.2017 – Nov. 2017	Gargi Memorial Institute of Technology Asst. Prof. Of Civil Engineering Department
Jul.2016 – Feb. 2017	Dr. Sudhir Chandra Sur Degree Engg. college Asst. Prof. Of Civil Engineering Department
Aug. 2012-June 2014	Shree Ramkrishna Institute of Science and Technology Lecturer Of Civil Engineering Department

Education

- 1. Ph.D., Civil Engineering, IIT Guwahati, Guwahati, India August 2023**
Dissertation: A Frequency Domain Based Inverse Ground Response Analysis Framework For The Determination of Dynamic Soil Properties
(Advisor: Dr. Abhishek Kumar)
- 2. M.Tech., Geotechnical Engineering, IIT Guwahati, IIT Guwahati, June 2016**
Thesis: Forward and Inverse Equivalent linear Ground response Analysis: Understanding and Application
(Advisor : Dr. Abhishek Kumar)
- 3. B.E., Civil Engineering, Jadavpur University, Jadavpur, India June 2012**

Software Proficiency MS Office, C, MATLAB, Autocad, Staad Pro, Seismo signal, SHAKE2000, DEEPSOIL

**List of
Publications**

Book Chapter

- 1) Halder, S., J. K. Mondal, and A. Kumar. "**Empirical correlations for strain dependent linear 1D ground response analysis for Guwahati, India based on detailed analyses.**" *Earthquake Geotechnical Engineering for Protection and Development of Environment and Constructions*. CRC Press, 2019. 2779-2786.
- 2) Harinarayan, N.H., Mondal, J.K., Kumar, A. (2021). "**Establishing Seismic Site Class for 4 Recording Stations in Uttarakhand Based on Generalized Inversion and 1-D Equivalent Linear Site-Specific Response Analysis.**" In: Patel, S., Solanki, C.H., Reddy, K.R., Shukla, S.K. (eds) *Proceedings of the Indian Geotechnical Conference 2019*. Lecture Notes in Civil Engineering, vol 138. Springer, Singapore. https://doi.org/10.1007/978-981-33-6564-3_48
- 3) Borah, N., Mondal, J.K., Kumar, A. (2023). "**Determination of Site Specific Response Spectra for Site Class D and E for Guwahati City, NE India Region.**" In: Muthukkumaran, K., Ayothiraman, R., Kolathayar, S. (eds) *Soil Dynamics, Earthquake and Computational Geotechnical Engineering*. IGC 2021. Lecture Notes in Civil Engineering, vol 300. Springer, Singapore. https://doi.org/10.1007/978-981-19-6998-0_28

Journals

- 1) Mondal, J.K., Kumar, A. "**New Frequency Domain Framework of Inverse Ground Response Analysis for the Determination of Dynamic Soil Properties of Multilayered System.**" *Indian Geotech J* (2023). <https://doi.org/10.1007/s40098-023-00791-8> (Scopus)
- 2) Mondal, Joy K., and Abhishek Kumar . "**A new framework of inverse ground response analysis for the determination of dynamic soil properties of two-layered system.**" *International Journal of Geomechanics* 23.11 (2023): 04023198. (SCI)
- 3) Mondal, Joy K., and Abhishek Kumar. "**New Frequency Domain–Based Inverse Ground Response Analysis Framework for the Determination of Dynamic Soil Properties.**" *International Journal of Geomechanics* 21.5 (2021): 04021058. (SCI)
- 4) Mondal, Joy Kumar, and Abhishek Kumar. "**A Systematic Review on Inverse GRA Methodologies Developed for the Determination of Dynamic Soil Properties Using Downhole Seismic Array Records.**" *Indian Geotechnical Journal* (2021): 1-16. (Scopus)
- 5) Kumar, Abhishek, and Joy K. Mondal. "**Newly developed MATLAB based code for equivalent linear site response analysis.**" *Geotechnical and Geological Engineering* 35.5 (2017): 2303-2325. (Scopus)
- 6) Mondal, Joy K., and Abhishek Kumar. "**Impact of higher frequency content of input motion upon equivalent linear site response analysis for the study area of Delhi.**" *Geotechnical and Geological Engineering* 35.3 (2017): 959-981. (Scopus)

Conference Papers

- 1) Mondal, J.K., and Kumar, Abhishek. "**Impact of frequency content of input motion upon local site effect.**" *Proceedings of 50th Indian Geotechnical Conference*, 2015.
- 2) Mondal, J.K., Harinarayan, N. H., Kumar, Abhishek. "**Correlation between soil amplification and recorded ground motions for typical locations in Uttarakhand**". *Proceedings of 17WCEE*, Japan, 2020

Job Profile

- I. Assistant Professor in EE Department, Dream Institute of Technology. (20123)
- II. Departmental Committee Member, Electrical Engineering. (2023)
- III. Digital Media promotion Committee Member, Dream Institute of Technology. (2023)

Personal Details

Name	JOY KUMAR MONDAL
Date of Birth	21/07/1989
Residential Address	25A, Patuapara Lane, Serampore Hooghly: 712201
Contact no	8450849067
Parents name	MR. Purnendu Sekhar Mondal, Mrs. Tapashi Mondal

Subject taken in UG Level

- 1) Soil mechanics
- 2) Foundation engineering
- 3) Sub-surface exploration
- 4) Ground improvement techniques
- 5) Theory of structure
- 6) RCC design
- 7) Strength of materials
- 8) Engineering mechanics
- 9) Engineering drawing
- 10) Basic surveying

Subject taken in PG Level

- 1) Soil Structure Interaction
- 2) Structural dynamics
- 3) Soil dynamics

I affirm that all the information given here is true to the best of my knowledge.

