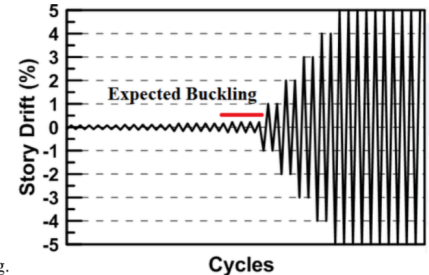


Finite element mesh pattern used in the brace modelling.



## Professor Dipti Ranjan Sahoo

From: P.C Ashwin Kumar, Dipti Ranjan Sahoo & Nitin Kumar, "Limiting slenderness ratio for hollow square braces in special concentrically braced frames", Proceedings of the Tenth Pacific Conference on Earthquake Engineering Building an Earthquake-Resilient Pacific 6-8 November 2015, Sydney, Australia

See:

<http://web.iitd.ac.in/~drsahoo/>

<http://www.iitd.ac.in/content/dipti-ranjan-sahoo-civil>

[https://www.researchgate.net/profile/Dipti\\_Ranjan\\_Sahoo](https://www.researchgate.net/profile/Dipti_Ranjan_Sahoo)

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### Education:

2008 Ph.D. Civil Engineering, Indian Institute of Technology Kanpur, India

2003 M.Tech. Civil Engineering, Indian Institute of Technology Kanpur, India

2001 B. Engg. Civil Engineering, Indira Gandhi Institute of Technology, Utkal Univ., India

### Research Interests:

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### Biography:

Dr. Dipti Ranjan Sahoo received his B. E. (2001) in Civil Engineering from Indira Gandhi Institute of Technology (Utkal University), M. Tech. (2003) and Ph. D. (2008) in Structural Engineering specialization from Indian Institute of Technology (IIT) Kanpur. He worked as Post-doctoral Fellow in the Department of Civil Engineering at the University of Texas at Arlington, USA for a period of two years. He started his academic career as Assistant Professor in the School of Infrastructure at IIT Bhubaneswar where he served for six months and then, joined as Assistant Professor in the Department of Civil Engineering, IIT Delhi in December, 2010. His areas of research include Dynamic and inelastic behavior of steel and reinforced concrete structures, Large-scale testing of structural systems, Performance-based plastic design, Finite element modeling, Seismic evaluation and strengthening, Supplemental damping and passive energy dissipation devices, and Steel fiber reinforced concrete structures. He is the reviewer of many international and national journals, and the member of several international and national professional organizations.

### Autobiography:

I am working as Associate Professor in Department of Civil Engineering, Indian Institute of Technology (IIT) Delhi. Currently, I am working on Self-centering Buckling-restrained braced frames (BRBFs), Special concentric braced frames (SCBFs), Steel plate shear wall systems, Supplemental passive energy dissipation

devices, Performance-based seismic design, Retrofitting and strengthening of RC frames. Fiber reinforced concrete, and earthquake reconnaissance survey

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- Sachin Jain, Durgesh C. Rai and Dipti R. Sahoo, "Postyield cyclic buckling criteria for aluminum shear panels", *Journal of Applied Mechanics*, Vol. 75, Article 021015, March 2008
- Nagaprasad P; Sahoo DR; Rai DC (2009). "Seismic strengthening of RC columns using external steel cage." *Earthquake Engineering and Structural Dynamics*, 14(38), pp. 1536–1586.
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- Chao, S. H., Karki, N.B., and Sahoo, D.R. (2013). "Seismic Behavior of Steel Buildings with Hybrid Braced Frames," *ASCE Journal of Structural Engineering*, 139(6), 1019–1032.
- Nitin Kumar, P.C. Ashwin Kumar and Dipti Ranjan Sahoo, "Optimum range of slenderness ratio for braces in special concentric braced frames", *Fifth Asia Conference on Earthquake Engineering*, October 16-18, 2014
- Ashwin Kumar and Dipti R. Sahoo, "Effect of brace configurations on the behavior of SCBFS under near-field earthquake". *EUROSTEEL 2014*, September 10-12, 2014, Naples, Italy
- M.S. Pandikkadavath, N. Kumar and D.R. Sahoo, "Evaluation of energy parameters of short length buckling-restrained braces", Paper No. 133, *15th Symposium on Earthquake Engineering*, Indian Institute of Technology, Roorkee, December 11-13, 2014
- P.C. Ashwin Kumar, D. Ranjan Sahoo, N. Kumar, Limiting values of slenderness ratio for circular braces of concentrically braced frames, *J. Constr. Steel Res.*, 115 (2015), pp. 223–235
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- Dar, M.A., Sahoo, D.R., Jain, A.K. (2018b) "Battened Built-up Cold-Formed Steel Columns: Strength and Deformation Behaviour", *Advances in Concrete, Structural & Geotechnical Engineering*, 185-189, Bloomsbury, (Ed.: Singh S.B., Bhunia D., and Muthukumar G.)
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