

PUBLICATIONS

JOURNAL PAPERS

- Islam MRI, **Chakraborty S**, Shaw A. “On Consistency and Energy Conservation in Smoothed Particle Hydrodynamics.” *International Journal for Numerical methods in Engineering*, 116-9 (2018), pp. 601-632
- Islam MRI, **Chakraborty S**, Shaw A, Reid S. “A computational model for failure of ductile material under impact.” *International Journal of Impact Engineering*, 108, (2017), pp. 334-347.
- **Chakraborty S**, Islam MRI, Shaw A, Ramachandra LS, Reid SR. “A computational framework for modelling impact induced damage in ceramic and ceramic-metal composite structures.” *Composite Structures*, 164, (2017), pp. 263-276.
- **Chakraborty S** and Shaw A. “Prognosis for Ballistic Sensitivity of Pre-Notch in Metallic Beam through Mesh-less Computation Reflecting Material Damage.” *International Journal of Solids and Structure*, 67-68 (2015), pp. 192-204.
- **Chakraborty S**, Shaw A and Banerjee, B. “An axisymmetric model for Taylor impact test and estimation of metal plasticity.” *Proceedings of the Royal Society A*, 471(2014), doi = 10.1098/rspa.2014.0556.
- Shaw A, Reid SR, Roy D and **Chakraborty S**. “Beyond classical dynamic structural plasticity using mesh-free modelling techniques.” *International Journal of Impact Engineering*, 75 (2015), pp. 268 – 278.
- **Chakraborty S** and Shaw A. “Crack Propagation in Bi-material System via Pseudo-Spring Smoothed Particle Hydrodynamics.” *International Journal for Computational Methods in Engineering Science and Mechanics*, 15-3 (2014), 294-301.
- **Chakraborty S** and Shaw A. “A pseudo-spring based fracture model for SPH simulation of impact dynamics.” *International Journal of Impact Engineering*, 58 (2013), pp. 84 – 95.

CONFERENCES

- Jain V, Kumar R and **Chakraborty S**. (2019) “Non-linear dynamic response and dynamic buckling of isotropic imperfect thin plates.” *International conference on nonlinear solid mechanics* (ICoNSoM2019), Roma-Italy, 16-19 June 2019.
- Singh SK, Dey T and **Chakraborty S**. (2019) “Study on low velocity impact response of GFRP laminated composites.” *International conference on nonlinear solid mechanics* (ICoNSoM2019), Roma-Italy, 16-19 June 2019.
- **Chakraborty S** and Dey T. (2017) “Mesh-less simulation of crack propagation in Functionally Graded Materials (FGM) subjected to impact loading.” 20th *International Conference on Composite Structures* (ICCS20), Paris-France, 4-7 September 2017.
- Dey T and **Chakraborty S**. (2017) “Dynamic instability analysis of FGM cylindrical shell panels subjected to parabolic edge loading and thermal environment.” 20th

International Conference on Composite Structures (ICCS20), Paris-France, 4-7 September 2017.

- Rusdie MI, **Chakraborty S** and Shaw A. (2014) “Evaluation of metal plasticity by optimization on mathematical model of Taylor impact test.” *Structural Engineering Convention (SEC)*, IIT Delhi - INDIA, 22-24 December 2014.
- Rusdie MI, **Chakraborty S** and Shaw A. (2014) “Numerical simulation of adiabatic shear plugging.” *5th International Congress on Computational Mechanics and Simulation (ICCMS)*, Chennai - INDIA, 10-13 December 2014.
- **Chakraborty S** and Shaw A. (2014) “Numerical Modelling of Dynamic Crack Growth past an Inclusion.” *International Conference on Computational & Experimental Engineering and Sciences (ICCES’14)*, Changwon, Korea, June 12 - 17, 2014.
- **Chakraborty S** and Shaw A. (2012) “Damage in Brittle Solids via Pseudo-Spring Smoothed Particle Hydrodynamics.” *4th International Congress on Computational Mechanics and Simulation (ICCMS)*, IIT Hyderabad - INDIA, 10-12 December 2012.
- **Chakraborty S**, Mondal SB, Guchhait S and Pandey AD. (2010) “Influence of Train Speed on Fatigue characteristics of a Steel Girder Railway Bridge.” *14th Symposium on Earthquake Engineering (SEE)*, IIT Roorkee -INDIA, 17-19 December 2010.
- **Chakraborty S** and Pandey AD. (2010) “Soil-Structure interaction effects on fatigue life of a long span Railway steel truss bridge.” *14th Symposium on Earthquake Engineering (SEE)*, IIT Roorkee - INDIA, 17-19 December 2010.

INVITED TALK

- Development of Cement Technology for Sustainable Infrastructure – 2019, at IIT (ISM) Dhanbad, February 2018
- Advances in Structural & Geotechnical Engineering (ASGE), at IIT (ISM) Dhanbad, June 2018
- Recent Trends in Civil Engineering, at Jadavpur University, January 2018