

Santosh KAKARLA

Personal profile

A civil engineer with a strong background in structural engineering, mainly, the application of computational mechanics and numerical methods in this field. I am currently a pursuant of PhD in civil engineering at LMT Cachan, ENS Paris-Saclay in collaboration with CEA Saclay. My current research is related to the risk and safety assessment of complex engineering structures dedicated to civil, nuclear and industrial purposes. In particular, I am involved in developing numerical techniques to model highly non-linear phenomena, such as cracking in quasi brittle materials. These modeling tools are indispensable in predicting the seismic safety of structures involving high risk, for instance Nuclear Power Plant (NPP).

Work experience

PhD/Doctoral researcher at CEA - Commissariat à l'énergie atomique et aux énergies alternatives

November 2016 – Present

Research activities :

- Finite element method
- Modeling of failure in quassi-brittle materials
- Microplane models
- Embedded finite element method

Simulation softwares:

- Developed several constitutive models in CastLab , a finite element tool box in MATLAB environment developed at CEA
- Experience in the solid mechanics modules of Cast3M

Project Associate at IITH - Indian Institute of Technology Hyderabad

October 2015 – March 2016

Research activities :

- Meshless analysis of composite plates
- Element Free Galerkin Method (EFGM)

- Nonlocal elasticity
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Education

Ecole centrale de Nantes

Master of Technology in Civil Engineering (second year), 2014 – 2015

National institute of technology

Master of Technology in Civil Engineering (first year), 2013 – 2014

Andhra university

Bachelor of Engineering in Civil Engineering, 2009 - 2013

Scholarships and achievements

- Scholarship holder under HERITAGE Erasmus Mundus Action 2 project on a Master exchange programme to Ecole Centrale de Nantes
 - Awardee of the scholarship by Ministry of Human Resources and Development (MHRD), India
 - Secured all India rank 362 out of 90,000 appeared in Graduate Aptitude Test in Engineering (GATE-2014).
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Involvement in AFPS

- An active member of **Groupe Jeunes (GJ)** of AFPS since 2018
 - Participated in **Journée Technique du Groupe Jeune** on 28/09/218 at Pau
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Contact

58 Bis, Rue de Lozère,

Orsay, 91400, France.

[LinkedIn profile](#)

Email : kakarlasantosh22@gmail.com