PRASHANT KUNJAM

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Education

M.Tech (Research) in Aerospace Engineering 2020
Indian Institute of Science (IISc), Bangalore

- *Dissertation title*: "Optimal Numerical Integration Method for Higher-Order Polygonal Finite Elements and its Application in Microstructure Modeling"
  Advisor: Dr. D. Roy Mahapatra, Associate Professor, IISc

Bachelor of Engineering in Mechanical Engineering 2016
O.P. Jindal University (OPJU), Raigarh

Research Experience

Indian Institute of Science(IISc) Karnataka, India
M.Tech (Research) Scholar 2017 – 2020
Responsible for development of the numerical method and modeling of microstructure

- Developed a new numerical integration method for two-dimensional polygonal finite elements.
- Developed a novel method of microstructure reconstruction based on statistical parameters.
- Quantification of structure-property correlation for alloy microstructure.

National Aerospace Laboratories(NAL) Karnataka, India
Summer Research Intern 2014 – 2014

- Learned and assisted in conducting impact tests carried out in Impact and Crashworthiness facility.
- Finite element modeling of structural mechanics problems using Hypermesh and NASTRAN.

Industrial Experience

Bhilai Steel Plant, Steel Authority of India Limited (SAIL)
Summer Industrial Trainee for two months 2015

- Learned maintenance practices conducted in Gas Cleaning Plant.
- Practical exposure of rail manufacturing, casting, and heat treatment techniques used in Bhilai Steel Plant.

Conference Presentations

- Poster presentation on "Stress Localization in Titanium Alloy Microstructure due to Grain Orientation Anisotropy", International Conference on Advanced Materials and Processes for Defence Applications (ADMAT), 2019
- Oral presentation on "Stress Localization in Titanium Alloy Microstructure due to Grain Orientation Anisotropy" in Innovation Pavillion Contest held by ADMAT, 2019

Fellowship

- MHRD scholarship for qualifying Graduate Aptitude Test in Engineering (GATE) in 2017

Technical Skills

- Matlab
- Fortran
- Machine Learning
- Finite Element Analysis
- MS Office

References

D. Roy Mahapatra, Associate Professor
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M. Ramchandra Bhat, Chief Research Scientist
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Mahesh K Bhiwapurkar, Professor
Department of Mechanical Engineering, O.P. Jindal University
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Deepa Sakravarthini, Senior Scientist
CSIR-National Aerospace Laboratories, Bangalore
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