

Personal Details

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Career Objective To use my innovative and creative research abilities and engineering skills to identify and optimize new and advanced materials, manufacturing processes that underpin technological innovation. To continually improve and hone my leadership, managerial and interpersonal skills to provide a thriving work environment that promotes creativity and excellence.

Salient Features

- 12+ years of experience in mechanical engineering industry and academia
- 6+ experience in simulation of thermal and mechanical loading of engineering structures and welding of components using ABAQUS
- 5+ years of experience in teaching and training
- 5+ experience in managing and leading team members
- 2+ experience in conducting training and workshops for professional development
- 5+ experience in initiation of collaboration and networking with Industries (IGCAR (India), BARC(India), EDF Energy, and academic institutions (IIT Madras, IIT Roorkee, University of Manchester, University of Oxford)
- Actively involved in public outreach activities through teaching and demonstrations as a part of *The Brilliant Club*
- Continuous professional development through e-learning of courses from online training platforms such as *futurelearn*
- Published 21 articles in leading international journals and conference proceedings through competitive peer-reviewed selection process (*Materials Processing Technology, Structural Mechanics in Reactor Technology*). Member of European Steering Committee NET (across 35 organisations around the world) for standardising weld residual stress (WRS) characterisation and conducted collaborative round-robin research which resulted in revision of the R6 assessment code (V5).

Professional Experience

Dates (from – to): **Jan 2015 – present**
Employer details: University of Bristol, Bristol, UK
Position: **Post-Doctoral Research Associate**
Projects: High temperature structural integrity (EDF Energy, BARC (India), IGCAR(India))
Department: Mechanical Engineering – Solid Mechanics

Roles and Responsibilities:

- Thermo-mechanical simulation for verifying safety assessments of structures at high temperatures.
- Experimental and numerical simulation based characterisation of laser, electron beam welded joints.
- Performing analytical calculations and developing safety cases based on R5/R6 code.
- Designing experiments in order to reproduce plant failure conditions to identify potential failure mechanisms, damage nucleation and accumulation.
- Writing proposals for obtaining beam time at neutron/synchrotron diffraction facilities.
- Writing proposals for research project funding under a competitive peer-reviewed process.
- Managing and supervising undergraduate and postgraduate research projects
- Writing technical reports highlighting significant research findings and implementation in Industry using case-studies.
- Conduct peer-reviewing of journal articles, research proposals for project funding.

Dates (from – to): **Sep 2006 – June 2011**
Employer details: Triad Software Pvt. Ltd, Chennai, India
Position: **Senior Software Design Engineer**

Role and responsibilities

- Project management, requirement analysis and work allocation to the team members
- Performance assessment and managing deliverables from team members
- Analysis, development, testing and maintenance of Pro-E, CATIA, STEP translators and viewers using C++/VC++

- Developing software libraries for mathematical routines and geometric utilities related to translators in Computer Aided Design (CAD) applications using Parasolid kernel
- Recruitment and selection of candidates through interviews and assessments
- Conducting professional development training and workshops for newly recruited team members

Dates (from – to): **Dec 2004 – Aug 2006**
Employer details: Velammal Engineering College, India
Position: Lecturer

Role and responsibilities

- Handling classes to under-graduate students in machine design, strength of materials, theory of machines and vibration analysis
- Designing course material and test methods for assessment and evaluation
- Liaising with industries to set up collaboration for research activities
- Assisting, supervising and evaluating undergraduate student projects

Dates (from – to): **Jan 2004 – Sep 2004**
Employer details: Indian Institute of Technology (IIT Madras), India
Position: Research Assistant

Role and responsibilities

- Involved in the research of finite element modelling of heart using ABAQUS
- Investigating the constitutive behaviour of hyper elastic materials like rubber and developing constitutive equations

Educational Qualification

Doctor of Philosophy – Mechanical engineering

Duration **June 2011 – Jan 2014**
Name of University University of Bristol, Bristol, UK
Degree awarded PhD in Mechanical engineering
Thesis Characterising high energy beam welding in structural steels with numerical simulation and validation

Master of Engineering – Production engineering

Duration **Aug 2001 – Feb 2003**
Name of the University PSG College of Technology, Coimbatore (India)
Degree awarded Master of Engineering in Production Engineering
Grade 9.08/10

Bachelor of Technology – Mechanical engineering

Duration **Oct 1997 – May 2001**
Name of the University Koneru Lakshmaiah College of Engineering (KLCE) (India)
Degree awarded Bachelor of Technology in Mechanical Engineering
Grade 86.5%

Technical Skillset

FE packages ABAQUS
Programming C++, VC++, Fortran, Python
Documentation MS Office, Latex
Operating systems Windows, UNIX, LINUX
Kernels Parasolid, ACIS
CAD packages CATIA V5/V6, Pro-Engineer, Solidworks

Languages

English Business Fluent
German Beginner
Telugu Mother Tongue

Tamil
Hindi

Fluent
Fluent

Professional Certification

Professional certification in leadership and management by the Open University
(<https://www.futurelearn.com/certificates/av3fobw>)