

# National Institute of Technology, Tiruchirappalli:

## Performa for CV of Faculty/ Staff Members

### Curriculum Vitae



Brief Profile: 1-2 paragraphs (not exceeding 500 words)

Suman Dutta is an Assistant Professor in the Department of Mechanical Engineering, National Institute of Technology Tiruchirappalli (NITT). He holds a Ph.D. in Mechanical Engineering from Indian Institute of Science (IISc), Bengaluru. His doctoral research focusses on the development of robust ‘monolithic’ finite element solvers for solving different types of fluid-solid interaction problems and carrying out multi-physics simulations. He specializes in continuum mechanics and fluid-structure interactions. He secured All India Rank of 10 in GATE 2016. He has obtained his B.E. degree in Mechanical Engineering from Jadavpur University, Kolkata. After completing his doctoral work, he has worked as a Project Scientist at IISc in the Development of indigenous simulation model for design validation of OHE-Pantograph Interactions – a project funded by National High Speed Rail Corporation Limited (NHSRCL).

1. Name: Dr. Suman Dutta

2. Designation: Assistant Professor

3. Office Address:

Room no. M-13, Mechanical Engineering  
Department, National Institute of Technology,  
Tiruchirappalli, Tamil Nadu - 620015

4. Telephone (Direct) (Optional):

Telephone :

Extn (Optional):

Mobile (Optional):

5. Email (Primary): suman@nitt.edu

Email (Secondary) :

6. Field(s) of Specialization:

Solid Mechanics, Fluid Mechanics, Finite Element  
Methods, Fluid-Structure Interaction, Multiphysics  
Simulations.

7. Employment Profile

Job Title	Employer	From	To
Assistant Professor	NIT, Trichy	June 2024	Present
Project Scientist 1	IISc, Bengaluru	July 2023	May 2024
Management Trainee	BPCL	June 2016	June 2017

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### 8. Academic Qualifications (From Highest Degree to High School):

Examination	Board / University	Year	Division/ Grade	Subjects
PhD & MTech (Res)	IISc, Bengaluru	2023		Mechanical Engineering
BE	Jadavpur University	2016	1st	Mechanical Engineering
ISC	CISCE	2012	1st	Science
ICSE	CISCE	2010	1st	

### 9. Academic/Administrative Responsibilities within the University

Position	Faculty/Department/Centre/Institution	From	To

### 10. Academic/Administrative Responsibilities outside the University

Position	Institution	From	To

### 11. Awards, Associateships etc.

Year of Award	Name of the Award	Awarding Organization
2016	University Medal	Jadavpur University

### 12. Fellowships

Year of Award	Name of the Fellowship	Awarding Organization	From (Month/Year)	To (Month/Year)

### 13. Details of Academic Work

- (i) Curriculum Development
- (ii) Courses taught at Postgraduate and Undergraduate levels
  - UG courses: Strength of Materials
  - PG courses: Advanced Fluid Mechanics
- (iii) Projects guided at Postgraduate level
- (iv) Other contribution(s)

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### 14. Details of Major R&D Projects

Title of Project	Funding Agency	Duration		Status
		From	To	Ongoing/ Completed

### 15. Number of PhDs guided

Name of the PhD Scholar	Title of PhD Thesis	Role(Supervisor/ Co-Supervisor)	Year of Award

### 16. Participation in Workshops/ Symposia/ Conferences/ Colloquia /Seminars/ Schools etc. (mentioning the role)

Date (s)	Title of Activity	Level of Event (International/ National/ Local)	Role (Participant/ Speaker/ Chairperson, Paper presenter, Any other)	Event Organized by	Venue

### 17. Workshops/ Symposia/ Conferences/ Colloquia/Seminars Organized (as Chairman/ Organizing Secretary/ Convenor / Co-Convenor)

Title of Activity	Level of Event (International/ National/ Local)	Date (s)	Role	Venue

### 18. Invited Talks delivered

Topic	Date	Inviting Organization

### 19. Membership of Learned Societies

Type of Membership (Ordinary Member/ Honorary Member / Life Member )	Organization	Membership No. with date

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20. Academic Foreign Visits

Country	Duration of Visit	Programme

21. Publications

(A) Refereed Research Journals:

Author(s)	Title of Paper	Journal	Volume (No.)	Page numbers	Year	Impact Factor of the Journal (Optional)
Suman Dutta, C. S. Jog	A monolithic arbitrary Lagrangian–Eulerian-based finite element strategy for fluid–structure interaction problems involving a compressible fluid	International Journal for Numerical Methods in Engineering	122	6307-6102	2021	2.9
Suman Dutta, Manish Agarwal, C. S. Jog	A monolithic, ALE finite-element-based strategy for partially submerged solids in an incompressible fluid flow using the mortar method	Journal of Fluids and Structures	115	103780	2022	3.6
Suman Dutta, C. S. Jog	A monolithic, finite element-based strategy for solving fluid structure interaction problems	Computers & Fluids	264	105966	2023	2.8

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(B) Conferences/Workshops/Symposia Proceedings

Author(s)	Title of Abstract/ Paper	Title of the Proceedings	Page numbers	Conference Theme	Venue	Year

(C) Books & Monographs

Author(s)	Title of Book/Monograph	Name of Publishers	Year of Publication	ISSN/ISBN Number