

# National Institute of Technology, Tiruchirappalli: Performa for CV of Faculty/ Staff Members

## Curriculum Vitae



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

1. Name Dr. T. RAMESH
2. Designation: Associate Professor
3. Office Address: Department of Mechanical Engineering,  
National Institute of Technology,  
Tiruchirappalli – 620 015  
Tamil Nadu, India.
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[tramesh72@gmail.com](mailto:tramesh72@gmail.com)
6. Field(s) of Specialization: Engineering Design
7. Employment Profile

Job Title	Employer	From	To
Associate Professor	National Institute of Technology Tiruchirappalli	12-03-2018	Till Date
Assistant Professor		15-07-2009	11-03-2018
Lecturer (Senior Scale)		01-07-2007	14-07-2009
Lecturer		31-03-2006	30-06-2007
Assistant Professor	J.J. College of Engineering and Technology, Tiruchirappalli	01-02-2004	30-03-2006
Lecturer		08-07-1998	31-01-2004
Lecturer	Jayaram College of Engineering and Technology, Thuraiyur, Trichy	30-07-1997	03-07-1998

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

Examination	Board / University	Year	Division/ Grade	Subjects
Ph. D.	Bharathidasan University, Trichy	2006	Highly Commended	Composite Materials
M.E.,	Bharathiyar University, Coimbatore	1997	First Class, 72.53%	Engineering Design
B.E.,	Madrassa University	1995	First Class, 67.45%	Mechanical Engineering
H.Sc.	State Board of Tamil Nadu	1989	84.25%	--
S.S.L.C.	State Board of Tamil Nadu	1987	65%	--

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

Position	Faculty/Department/Centre/Institution	From	To
Faculty In-Charge, Student Innovation Centre	Centre	2020	Till Date
Member, UG Admission Committee	Institution	12-03-2019	Till Date
Associate Dean (UG)	Institution	03-01-2018	22-01-2020
Faculty Advisor – Designer Consortium	Institution	12-03-2018	31-07-2021
UG Project Coordinator	Department	01-07-2019	19-09-2021
Faculty Advisor (PG)	Department	02-07-2018	01-01-2020
PAC Chairman (UG)	Department	02-07-2018	31-12-2020
Warden	Institution	12-11-2015	19-12-2017
FESTEMBER Coordinator	Institution	01-06-2012	30-06-2013
Member - Institute Purchase Committee	Institution	24-11-2012	04-11-2014
Convenor – AC Maintenance Committee	Institution	17-03-2009	16-03-2011

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

Position	Institution	From	To
Member, Affiliation Committee	Anna University, Chennai	2021	Till Date
Member of the Board of Studies, Mechanical Engineering	NIT Puducherry	2019	Till Date
Member of the Board of Studies, Mechanical Engineering	St. Josephs College of Engineering Chennai	2020	Till Date
Member of the Board of Studies, Mechanical Engineering	K.L.N. College of Engineering, Madurai	2020	Till Date
Member of the Board of Studies, Mechanical Engineering	Dhanalakshmi Srinivasan Engineering College, Perambalur	2021	Till Date
External Examiner, B.Tech., Project Viva Voce Exam	TCE, Madurai	2020	2021
Session Chair, ICoFT 2020	NIT Puducherry	2020	--

### 11. Awards, Associateships etc.

Year of Award	Name of the Award	Awarding Organization
2019	Faculty Award for Research Publication	NIT Trichy
2019	Faculty Award for Research Citations	NIT Trichy
2018	Faculty Award for Research Publications (web of Science)	NIT Trichy

### 12. Fellowships

Year of Award	Name of the Fellowship	Awarding Organization	From (Month/Year)	To (Month/Year)
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### 13. Details of Academic Work

(i) Curriculum Development

- Proposed and handled the paper, **ME307 - Analysis & Design of Machine Components**
- Proposed and handled the paper, **ME 642 - Finite Element Methods in Heat Transfer Analysis**
- Proposed and Handling **ME 316 – CADD Practice** for UG, VI SEM Students of Mech. Engg. (CAD Experiments on 2D graphics, 3D Modeling, Part and Assembly of Mech. Components)

(ii) Courses taught at Postgraduate and Undergraduate levels

**PG Level:** ME 642 - **Finite Element Methods in Heat Transfer Analysis**

**UG Level:** MP101 – **Engineering Graphics**  
ME307 – **Analysis and Design of Machine Components**  
ME 351 – **Finite Element Method**  
ME 407 – **Finite Element Method**  
ME454 – **Optimization in Engineering Design**  
ME 305 – **Mechanics of Machines – II**

(iii) Projects guided at Postgraduate level

Guided more than **30 M.Tech. Projects** in Industrial Safety Engineering & Thermal Power disciplines.

(iv) Other contribution(s)

1. Developed

- **CAD & Simulation Lab** for PG and Research Scholars of Mechanical Engineering
- **Micro Engineering Lab** for PG and Research Scholars of Mechanical Engineering
- **Mechanical Testing Lab** for UG, PG and Research Scholars of Mech. Engg.
- **Strength of Materials Lab** for UG students of Mech. Engg.,

2. Developing Student Innovation Centre at Institute Level.

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

Title of Project	Funding Agency	Duration		Status
		From	To	Ongoing/ Completed
Design and Analysis of Armour Solution Against Mine Blast	Ministry of Defence - DRDO - CVRDE	11.03.2021	--	Ongoing (Rs. 22.68 Lakhs)
Experimental Investigation and Finite Element Simulation of Workability of Al – TiC Metal Matrix Composite During Cold Upsetting	DST, New Delhi	14.04.2007	01.08.2011	Completed (Rs. 12.96 Lakhs)
Distribution of Load Transfer Pattern and Stress Distribution with Large Openings in the Furnace Walls of CFBC Boilers	BHEL, Trichy	30.12.2009	01.12.2010	Completed (Rs. 7.5 Lakhs)
Study and Development of Design Guidelines for Drag Link Chain Feeder	BHEL, Trichy	28.10.2009	01.09.2010	Completed (Rs. 22.0 Lakhs)
Support System for CFBC FBHE Coils and Back Pass Surfaces in CFBC Boilers	BHEL, Trichy	10.08.2009	10.08.2010	Completed (Rs. 9.0 Lakhs)
Comparative Study and Analysis of FBHE Coil Support Arrangement between BORE and Koniambo CFBC Boiler	BHEL, Trichy	01.09.2011	03.09.2012	Completed (Rs. 20.34 Lakhs)
Design and Analysis of Leak Proof Joints for Supercritical Boiler Tubes Test Facility	BHEL, Trichy	01.09.2011	03.12.2012	Completed (Rs. 9.04 Lakhs)
Failure Analysis of High-Pressure Feed Water Heaters of TPS I Expansion	NLC, Neyveli	06.05.2010	07.09.2011	Completed (Rs. 5.34 Lakhs)

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**15. Number of PhDs guided**

<b>Name of the PhD Scholar</b>	<b>Title of PhD Thesis</b>	<b>Role (Supervisor/ Co-Supervisor)</b>	<b>Year of Award</b>
V.V. Ramakrishna (411914004)	Microstructure and Magnetic Property correlation in Rare Earth Free Permanent Magnet – MnBi alloy	Supervisor	2022
N. B. Karthik Babu (411116009)	Development and Characterization of Polymer Matrix Composites for Structural and Microelectronic Applications	Supervisor	2021
M. Satthiya Raju (411114006)	Processing and Characterization of Polyvinylidene Fluoride based Composite Fibers for Mechanical Energy Harvesting Applications	Supervisor	2020
T Deepan Bharathi Kannan	Experimental Investigation on Laser Welding of Nitinol Shape Memory Alloy	Co-Supervisor	2017
S. Renold Elsen (411911003)	Micro Machining of Biomaterials	Supervisor	2016
R. Bharanidaran (411110003)	Design and Analysis of Microgripper for MEMS applications	Supervisor	2014
M. Prabhakar (MEK0601)	Effect of Reinforcement particle sizes on pore closure and workability in sintered Al – SiC powder metallurgy composite during cold upsetting	Supervisor	2009

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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
11.05.2020 – 15.05.2020	E-Content Development	National	Participant	NITTTR	Online Mode
04.09.2017 – 06.09.2017	Faculty – Mentors on Induction Programme for New Students	National	Participant	GCE, Raipur in association with NPIU	GCE, Raipur
21.10.2016 – 26.10.2016	TEQIP workshop on MEMS & NEMS	National	Participant	Department of Physics	IIT Hyderabad
22 - 23, February 2016	Course on Explosive Detection Meeting	National	Participant	Department of Electrical & Electronics Engineering	IIT Bombay
05 – 10, May 2015	FDP on 3D Printing Experience	National	Participant	Department of Mechanical Engineering	NIT Warangal
30.11.2015 – 11.12.2015	Orthopaedic Biomechanics: Implants and Biomaterials	National (GIAN Programme)	Participant	Department of Mechanical Engineering	IIT Kharagpur
11.12.2012 – 21.12.2012	Two Week ISTE Workshop on Engineering Thermodynamics	National NME on Education through ICT (MHRD)	Participant	Department of Mechanical Engineering	IIT Bombay

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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
Workshop on Design and Analysis of Mechanical Systems - (Self Supported)	National	10.06.2019 To 15.06.2019	Coordinator	NIT Trichy
Fundamentals and Advances in Finite Element Method Using MATLAB	National	19.06.2017 to 24.06.2017	Coordinator	NIT Trichy
TEQIP II Sponsored Workshop on Design and Analysis of Mechanical Systems	National	19.12.2016 to 24.12.2016	Coordinator	NIT Trichy
TEQIP II Sponsored Workshop on Research Trends in Mechanical Engineering	National	29.08.2016 to 03.09.2016	Coordinator	NIT Trichy
TEQIP II Sponsored Workshop on Research Scopes in Micro Engineering	National	28.04.2016 – 30.04.2016	Coordinator	NIT Trichy
International Conference on Advances in Design and Manufacturing	International	05, 06 and 07.12.2014	Organizing Secretary	NIT Trichy
TWO-WEEK ISTE WORKSHOP on Engineering Mechanics	National NME ICT, MHRD	26.11.2013 to 06.12.2013	Coordinator	NIT Trichy



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### 18. Invited Talks delivered

Topic	Date	Inviting Organization
MEMS – An Introduction	25.03.2022	Mahendra Engineering College, Mahendrapuri, Namakkal
Applications of FEM in Biomedical Engineering	07.03.2022	Kongu Engineering College, Erode
Role of FGCM in MEMS	08.12.2021	Thiyagarajar College of Engineering, Madurai
Research Scopes in MEMS	26-07-2021	Annamalai University, Chidambaram
Role of FEM in Biomedical Engineering	17.07.2020	Government College of Technology Coimbatore.

### 19. Membership of Learned Societies

Type of Membership (Ordinary Member/ Honorary Member / Life Member)	Organization	Membership No. with date
Life Member	Indian Society for Technical Education (ISTE)	LM 68631
Member	Society of Automotive Engineers	2012 - 2014

### 20. Academic Foreign Visits

Country	Duration of Visit	Programme
Indonesia	11.09.2018 – 19.09.2018	Institute representative for World Education Expo Indonesia through Study in India Program
	20.05.2008 – 17.06.2008.	
National University of Singapore, Singapore	22.05.2011 – 26.05.2011	3rd International Conference on Heterogeneous Materials Mechanics
Paris	02.12.2012 – 04.12.2012	3rd European Conference of Mechanical Engineering (ECME' 12)
	04.07.2013 – 05.07.2013	

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21. Publications

(A) Refereed Research Journals:

Author(s)	Title of Paper	Journal	Volume (No.)	Page numbers	Year	Impact Factor of the Journal (Optional)

(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
T.R.Chandrupatla, AD Belegundu, T Ramesh, C Ray,	Introduction to Finite Elements in Engineering – International Edition	Fourth Edition, Pearson Education Limited,	2014	1292014024, 9781292014029