

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

Engineer Trainee	Bin Dasmal Group of Companies, Dubai, UAE	Sep 2008	Jan 2010
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8. Academic Qualifications (From Highest Degree to High School):

Examination	Board / University	Year	Division/ Grade	Subjects
Ph.D.	Indian Institute of Technology (IIT) Roorkee, Roorkee-247667, India	2017		Mechanical Engineering
M.E.	PSG College of Technology, Coimbatore-641004, India	2008	8.61/10	Engineering Design
B.E.	PSG College of Technology, Coimbatore-641004, India	2006	7.71/10	Mechanical Engineering
D.M.E.	PSG Polytechnic College, Coimbatore-641004, India	2003	94 % (Gold Medal)	Mechanical Engineering

9. Academic/Administrative Responsibilities within the University

Position	Faculty/Department/Centre/Institution	From	To
Faculty Advisor	Mechanical Engineering Association (MEA), NIT Trichy	14-07-2022	Till Date
Faculty Advisor	Institute 3D Aeromodelling Club	29-07-2021	Till Date
Member	Department Project Evaluation Committee (DPEC) for M.Tech. TPE	August 2020	Till Date
Member	Institute Anti-ragging Committee	26-02-2021	Till Date
Member	Institute Convocation Committee for Seating and Logistics	July 2022	August 2022
Member	Department level Convocation Committee	July 2022	August 2022

10. Academic/Administrative Responsibilities outside the University

Position	Institution	From	To
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Research Co-Guide	SRM Institute of Science & Technology	2018	Till date
Research Co-Guide	SRM Institute of Science & Technology	2019	Till date

11. Awards, Associateships etc.

Year of Award	Name of the Award	Awarding Organization
2022	Best Paper Award	ICDAMS 2022 held at Saveetha School of Engineering, Chennai
2006	Qualified GATE Examination	IISc / IITs
2005	Qualified GATE Examination	IISc / IITs
2003	SHANTHI GEARS Award	Shanthi Gears, Coimbatore
2002	SHANTHI GEARS Award	Shanthi Gears, Coimbatore
2001	SHANTHI GEARS Award	Shanthi Gears, Coimbatore

12. Fellowships

Year of Award	Name of the Fellowship	Awarding Organization	From (Month/Year)	To (Month/Year)
2014	Doctoral Fellowship	MHRD, GoI	July 2014	May 2017
2006	PG Fellowship	MHRD, GoI	August 2006	May 2008
2003	UG Scholarship	Government of Tamilnadu	August 2003	April 2006
2000	Scholarship	Government of Tamilnadu	August 2000	April 2003

13. Details of Academic Work

(i) Curriculum Development

(ii) Courses taught at Postgraduate and Undergraduate levels

MEPC23 – Mechanics of Machines – II

MEIR11 – Basics of Mechanical Engineering

MEPC10 – Engineering Mechanics

MEPC20 – Mechanics of Machines – II

MELR12 – Computer Aided Machine Drawing

(iii) Projects guided at Postgraduate level

- PG Projects Guided:

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- Mr. CH. Santhosh Varun Kumar “*Structural and thermal analysis of fan blades*”. (2021-2022) (NIT Trichy)
- Mr. Parthiban A, “*Structural and thermal analysis of fan blades*”. (2021-2022) (NIT Trichy)
- Ms. Annapurna Bharti, “*Occupational Ergonomics*”. (2021-2022) (NIT Trichy)
- Ms. Aradhana Kumari “*Evacuation Modelling and Exit Capacity Analysis*”. (2020-2021) (NIT Trichy)
- Mr. Gadge Sanket Ravindraji, “*Fire Smoke Modelling in High Rise Building*”. (2020-2021) (NIT Trichy)

□ UG Projects Guided:

- Mr. Sai Charan Golu, Mr. Shreepad Narasimhan, Mr. Gokul Krishna K, “Automated Design Optimization of Unmanned Aerial Vehicles (UAVs)” (2021-2022)
- Mr. G Monish Kumaran, Mr. Karthikraja Ganesan, Mr. Vishal Prabakaran, “*Analysis of Nanomaterials using Molecular Dynamics*” (2020-2021)
- Mr. Sabyasachi Dash, Mr. Vijayaragavan S.M, Mr. R Kumaraguruparan, “*Optimization of IC engine mounts for BAJA ATV*” (2020-2021)
- Mr. Aditya Sharma, et al., “*Study and Development of 2D Materials and its Application in Water Desalination*” (2019-2020)
- Mr. Suvojit Hore, Diptam Roy Choudhury, “*Characterization of Mechanical Properties of 2D Nanomaterials using Molecular Dynamics*”. (2018-2019)
- Mr. Anush Juneja et al., “*Vibrational Analysis of Composite Leaf Spring*”. (2017-2018)

(iv) Other contribution(s)

14. Details of Major R&D Projects

Title of Project	Funding Agency	Duration		Status
		From	To	Ongoing/ Completed
Mechanical Design and Development of 2D Nanomaterials and its Performance Evaluation	NIT Tiruchirappalli	March 2021	April 2023	Ongoing

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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
7 th – 12 th March 2022	Prognostics and Health Management of Engineering Systems	National	Participant	Centre for Continuing Education, IIT Madras, Chennai	Online
6 th – 13 th Sep 2021	Concepts of Product Design	Local	Participant	SIEMENS Centre of Excellence in Manufacturing, NIT Tiruchirappalli	NIT Tiruchirappalli
23 rd Aug – 3 rd Sep 2021	Basics of Internet of Things	Local	Participant	SIEMENS Centre of Excellence in Manufacturing, NIT Tiruchirappalli	NIT Tiruchirappalli
4 th – 6 th August 2020	How Teachers can Make a Difference	Local	Participant	Dean Faculty Welfare, NIT Tiruchirappalli in association with Teaching Learning Centre, IIT Madras, Chennai	NIT Tiruchirappalli
11 th –	E-Content	Local	Participant	Dean Faculty	NIT

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15 th May 2020	Development			Welfare, NIT Tiruchirappalli in association with NITTTR Chennai	Tiruchirappalli
7 th May 2020	Research in Scopes in Mechanical Science	National	Participant	Chennai Institute of Technology, Chennai	Online
7 th – 8 th Sep 2018	Experimental Vibrations & Analysis	National	Participant	Department of Mechanical Engineering, SRM Institute of Science and Technology, Kattankulathur, Chennai	SRMIST, Chennai.
28 th July 2018	CMM Application on GD&T	Local	Participant	Centre for Advanced Tooling & Precision Dies, PSG Institute of Advanced Studies, Coimbatore	PSG Tech, Coimbatore.
26 th – 27 th July 2018	Materials Characterization Workshop (MCW 2018)	National	Participant	Department of Chemistry, SRM Institute of Science and Technology, Kattankulathur, Chennai	SRMIST, Chennai.
04 th - 11 th Jan 2018	Composite Materials: Theory and Applications (CMIA'18)	National	Participant	Mechanical Engineering Association, Department of Mechanical Engineering, SRM Institute of Science and Technology, Kattankulathur, Chennai	SRMIST, Chennai
20 th Nov 2017	Advanced Functional Materials and Design	Local	Participant	Department of Physics and Nanotechnology, SRM Institute of	SRMIST, Chennai

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	(AFMD2017)			Science and Technology, Kattankulathur, Chennai	
10 th – 12 th March 2017	Effect of topological defects on mechanical properties of graphene: a molecular dynamics study	International	Presenter	International conference on emerging trends in Materials and Manufacturing Engineering (IMME2017)	NIT, Tiruchirappalli
2008	Finite Element Analysis of Printed Circuit Board Under Random Vibration	National	Presenter	AIMS'08 2nd National Conference organized by Department of Mechanical Engineering of Kumaraguru College of Technology, Coimbatore	KCT, Coimbatore.
2005	Hysteretic Damping of Composite Leaf Spring	National	Presenter	YC5 Youth Conference organized by SAE INDIA Collegiate branch of PSG College of Technology, Coimbatore	PSG Tech, Coimbatore.
2005	Fast Track Modelling (Design Contest)	National	Participant	Second National Level Youth conference 2005 organized by the SAE INDIA Collegiate branch of PSG College of Technology, Coimbatore.	PSG Tech, Coimbatore.
2004	Value Stream Mapping	Local	Participant	Faculty of Mechanical Sciences, PSG College of Technology,	PSG Tech, Coimbatore.

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				Coimbatore	
October 2003	Advances in Automotive Technology	Local	Participant	SAE Collegiate branch, PSG College of Technology, Coimbatore	PSG Tech, Coimbatore.

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
Two days workshop on Research Advances in Computational Techniques for Characterizing Nanomaterials	National	August 23-24, 2019	Co-Convenor	Department of Mechanical Engineering, SRMIST, Chennai
Workshop on Evolution of Electronic Structure Theory & Experimental Realization	International	September 11-15, 2018	Member	SRM Institute of Science and Technology, Chennai and IIT Madras in association with MRSI Subject Group on Computational Material Science & MRSI Chennai Chapter
Festo Pneumatic Automation Contest	Local	February 18, 2006	Member	ASME, PSG Tech Coimbatore

18. Invited Talks delivered

Topic	Date	Inviting Organization
Strength of Materials for Mechanical Engineers	28th April, 2022	Department of Mechanical Engineering, MRK Institute of Technology, Kattumannarkoil

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Effects of Defects on Mechanical Properties of Graphene using MD Simulation	February 01-05, 2021	Academic Staff College in association with Centre for Nanotechnology Research of VIT Vellore
Introduction to Mechanical Vibration	March 01-06, 2021	Department of Mechanical Engineering, MNM Jain Engineering College, Chennai

19. Membership of Learned Societies

Type of Membership (Ordinary Member/ Honorary Member / Life Member)	Organization	Membership No. with date
Member	The Institution of Engineers (India) (MIE)	M-1658993
Member	Indian Science Congress Association (MISCA)	A8077

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)
Sabyasachi Dash, R Kumaraguruparan, Vijayaragavan S M, G. Rajasekaran	Optimization of IC engine mounts for BAJA All-Terrain Vehicle Centrifugal Fan	<i>Mater. Today: Proc.</i> ,	56(6)	3490-3496	2021	

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G. Naresh, G. Rajasekaran	Characterization and Applications of Titanium-based Shape memory alloys by Molecular Dynamic Simulation – A review	<i>IOP Conference Series: Mater. Sci. and Engg</i>	912	052027	2020	
Aniyush Juneja, G. Rajasekaran	Anomalous Strength Characteristics of Stone-Thrower-Wales Defects in Graphene Sheet – A Molecular Dynamics Study	<i>Phys. Chem. Chem. Phys.,</i>	20 (22)	15203-15215	2018	3.945
G. Rajasekaran, Avinash Parashar	Enhancement of Fracture Toughness of Graphene via Crack Bridging with Stone-Thrower-Wales defects	<i>Diamond Relat. Mater.</i>	74	90-99	2017	3.806
G. Rajasekaran, Avinash Parashar	Effects of topological defects on mechanical properties of graphene sheets – a molecular dynamics study	<i>Mater. Today: Proc.,</i>	5(2P2)	6780-6788	2018	
G. Rajasekaran, Avinash Parashar	Anisotropic compressive response of Stone-Thrower-Wales defects in graphene: A molecular dynamics study	<i>Mater. Res. Express</i>	3(9)	095015	2016	2.025

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G. Rajasekaran, Avinash Parashar	Molecular Dynamics Study on Mechanical Response and Failure Behaviour of Graphene: Performance Enhancement via 5-7-7-5 Defects	<i>RSC Adv.</i>	6(31)	26361-26373	2016	4.036
G. Rajasekaran, Rajesh Kumar, Avinash Parashar	Tersoff Potential with Improved Accuracy for Simulating Graphene in Molecular Dynamics Environment	<i>Mater. Res. Express</i>	3(3)	035011	2016	2.025
Rajesh Kumar, G. Rajasekaran, Avinash Parashar	Optimised cut-off function for Tersoff like potentials for BN nanosheet: A molecular dynamics study	<i>Nanotechnology</i>	27(8)	085706	2016	3.953
G. Rajasekaran, Prarthana Narayanan, Avinash Parashar	Effect of point and line defects on mechanical and thermal properties of graphene: a review	<i>Crit. Rev. Solid State Mater. Sci.,</i>	41(01)	47-71	2015	11.178

(B) Conferences/Workshops/Symposia Proceedings

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

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(C) Books & Monographs

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