

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

Curriculum Vitae



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

Graduate in materials engineering with 8 years of industrial, research and teaching experience in both India and overseas in the metal forming processes (Incremental sheet forming, Multi-point forming and die-less forming techniques), mechanical behavior of materials, casting processes, microscopy techniques (Optical, SEM and TEM), non-destructive testing, and light alloys (Mg, Al and Ti) development technology for the aerospace and automotive applications.

1. Name Dr. D. NAGARAJAN
2. Designation: Assistant Professor
3. Office Address: Room No: 101, New Annex Building, Dept of Metallurgical and Materials Engineering, National Institute of Technology (NIT) Tiruchirappalli.
4. Telephone (Direct) (Optional): +61-431-250 3712
Telephone : Extn (Optional): 3712
Mobile (Optional):
5. Email (Primary): nagarajand@nitt.edu Email (Secondary) :
6. Field(s) of Specialization: Metal Forming – Sheet and Bulk; Incremental Sheet Forming, Die-less Sheet Metal Forming Processes, Severe Plastic Deformation Processes; Light Alloys Development and Forming for Automotive & Aerospace Applications; Optimisation of Industrial 3D Optical Measurement Techniques.

7. Employment Profile

Job Title	Employer	From	To
Assistant Professor	National Institute of Technology (NIT), Tiruchirappalli, Tamil Nadu	14-05-2018	Continuing.
Assistant Professor	National Institute of Technology (NIT), Rourkela, Odisha.	13-07-2015	11-05-2018
Post-Doctoral Research Fellow	IIT Madras	26-12-2014	10-07-2015
Research Associate	Advanced Forming Research Centre (AFRC), Univ. of Strathclyde, Glasgow, UK.	11-11-2013	18-12-2014

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

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

Exami- nation	Board / University	Year	Division/ Grade	Subjects
PhD	The University of Queensland, Brisbane, Australia.	2014	-	Materials Engineering
M.S by Research	IIT Madras	2006	I	Metallurgical & Materials Engineering
B.E	Government College of Engineering, Salem, TN	2002	I	Metallurgical Engineering
+2	Gandhi Matric Higher Secon.School, Kandampalayam, Namakkal DT.	1998	I	Maths, Physics, Chemistry, Biology.
10 th	Government High School, Karichipalayam, Namakkal DT.	1996	I	Maths, Science, Social Science.

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
Faculty Advisor for B.Tech Students of 2016-2020 Batch	NIT Rourkela	01-07-2016	11-05-2018
Professor in-Charge for Dilatometer Lab	NIT Rourkela	01-07-2016	11-05-2018
Co-PIC for National Service Scheme	NIT Rourkela	01-07-2016	11-05-2018
PIC - Direct purchase of departmental consumables and equipments.	NIT Rourkela	01-07-2017	11-05-2018
Member – Dept. Research Committee	NIT Rourkela	01-07-2017	11-05-2018

11. Awards, Associateships etc.

Year of Award	Name of the Award	Awarding Organization
2013	Best metallographic picture for Australian Research Council [ARC] Annual Calendar	Australian Research Council for Centre of Excellence in Light Metals.
2010	University of Queensland Research Scholarship [UQRS] award [Duration - 3 ½ years]	The University of Queensland, Brisbane, Australia.

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

2010	Australian Research Council [ARC] top-up award for 3 ½ years.	Australian Research Council
------	---	-----------------------------

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
- (iii) Projects guided at Postgraduate level
- (iv) Other contribution(s)

14. Details of Major R&D Projects

Title of Project	Funding Agency	Duration		Status
		From	To	Ongoing/ Completed
Formability Analysis of Magnesium AZ31 Alloy Sheets During the Incremental Forming Process	SERB – Early Career Research Award	2017-07-15	2020-07-14	Ongoing
Press Brake Forming Case Study – 6XXX Series Aluminium Characterisation.	Catapult High Value Manufacturing, UK.	2014-03-01	2014-08-31	Completed
Formability Assessment of Titanium Alloys for Heat Exchanger Design.	Catapult High Value Manufacturing, UK.	2014-07-01	2014-12-12	Completed

15. Number of PhDs guided

Name of the PhD Scholar	Title of PhD Thesis	Role(Supervisor/ Co-Supervisor)	Year of Award
None.			

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

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

Date (s)	Title of Activity	Level of Event (International/ National/ Local)	Role (Participant/ Speaker/ Chairperson, Paper presenter, Any other)	Event Organized by	Venue
21-07-2018	Workshop on FEM & Practical Stress Analysis: Benchmark and Best Practices	International	Participant	NAFEMS - International Association for the Engineering Analysis Community	Bangalore

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
GIAN course titled "Materials Selection in Engineering Design"	National	12-23rd December 2016	Coordinator	NIT Rourkela
<i>National Conference on the Processing and Characterization of Materials – NCPCM 2017</i>	National	8-9 th December, 2017	Treasurer	NIT Rourkela
<i>National Conference on the Processing and Characterization of Materials – NCPCM 2015</i>	National	12-13 th December, 2015	Co-convenor	NIT Rourkela
<i>Materials Characterisation Workshop on Advanced Materials And Processes</i>	International	29 th May 2014	Coordinator	Advanced Forming Research Centre, Glasgow, UK

18. Invited Talks delivered

Topic	Date	Inviting Organization
-------	------	-----------------------

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

Formability Behavior of AA2024, 5083 and 7075 Aluminium Alloys during the Incremental Forming Process.	7th March 2017	Govt College of Engg, Salem, TN
Formability of Titanium Alloys at Room Temperature	29 th May 2014	Advanced Forming Research Centre, Glasgow, UK.
Effect of solute on the twinning behaviour in Mg and its alloys.	27 th May 2013	Charles University, Prague, Czech Republic.
Anelastic phenomenon in Mg-Zn alloys.	29 th November 2011	The University of Melbourne, Melbourne, Australia.

19. Membership of Learned Societies

Type of Membership (Ordinary Member/ Honorary Member / Life Member)	Organization	Membership No. with date
Life member	Indian Society for Non-destructive Testing [ISNT], Chennai Chapter	
Life member	Additive Manufacturing Society of India, Bangalore	
Life member	Indian Institute of Metals, Chennai chapter.	

20. Academic Foreign Visits

Country	Duration of Visit	Programme

21. Publications

(A) Refereed Research Journals:

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

Author(s)	Title of Paper	Journal	Volume (No.)	Page numbers	Year	Impact Factor of the Journal (Optional)
D. Nagarajan, and C H Cáceres	The Friction Stress of the Hall-Petch Relationship of Pure Mg and Solid Solutions of Al, Zn, and Gd.	Metallurgical and Materials Transactions A	Accepted for publication.	Under publication	2018	
Moyye Devi Prasad and D. Nagarajan	Optimisation of Tool Path for Improved Formability of Commercial Pure Aluminium Sheets during the Incremental Forming Process	Journal of American Institute of Physics Conference Proceedings, doi: 10.1063/1.5035049	1960	160023-1	2018	
H. Markanday and D. Nagarajan	Formability Behavior Studies on CP-Al Sheets Processed through the Helical Tool Path of Incremental Forming Process	IOP Conf. Ser.: Mater. Sci. Eng	314	012026	2018	
D. Nagarajan	Anelasticity in cast Mg-Gd alloys	Materials Science and Engineering A	695	14-19	2017	
D. Nagarajan, X. Ren and C H Cáceres	Anelastic behavior of Mg-Al and Mg-Zn solid solutions	Materials Science and Engineering A	696	387-392	2017	
D. Nagarajan, C H Cáceres and J R Griffiths	Grain Size Hardening Effects in Mg-Gd Solid Solutions	Metallurgical and Materials Transactions A	47A	5401-5408	2016	
D. Nagarajan and P. Mohanasivam	Microstructure and Wear Behaviour of a Functionally Gradient Al-Si Alloy Prepared Using the Cast-Decant-Cast (CDC) Process	Materials Performance and Characterization	5	637-647	2016	
K. Máthís, J. Čapek, B. Clausen, T. Krajňák and D. Nagarajan	Investigation of the dependence of deformation mechanisms on solute content in polycrystalline	Journal of Alloys and Compounds	642	185-191	2015	

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

	Mg-Al magnesium alloys by neutron diffraction and acoustic emission					
D. Nagarajan, G. Sivaswamy, R. Bhattacharya, D.P. Heck and M.A. Siddiq	Complex incremental sheet forming using back die support on aluminium 2024, 5083 and 7075 alloys	International Journal of Procedia Engineering	81	2298-2304	2014	
D. Nagarajan, C H Cáceres and J R Griffiths	Anelastic Phenomena in Mg-Al Alloys	International Journal of Acta Physica Polonica A	122 (3)	501-504	2012	
D. Nagarajan, Uday Chakkingal and P.Venugopal	Influence of Cold Extrusion on the Microstructure and Mechanical Properties of an Aluminium Alloy Previously Subjected To Equal Channel Angular Pressing	Journal of Materials Processing Technology	182	363-368	2007	
D. Nagarajan, Uday Chakkingal and P.Venugopal	Microstructure and Mechanical Properties Resulting from Conventional Cold Extrusion of Equal Channel Angular Extruded Aluminium Alloy AA6101	Materials Science Forum	503-504	287-292	2006	

(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	Year of	ISSN/ISBN

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

		Publishers	Publication	Number