

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

Curriculum Vitae



1. Name: Dr. K. Thirukkumaran
2. Designation: Assistant Professor
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5. Email (Primary):kkumaran@nitt.edu Email (Secondary)
:kumaranphy15@gmail.com
6. Field(s) of Specialization:
 - Advanced Anode & Cathode Materials for Li/Na Batteries
 - Failure analysis of Li/Na ion battery
 - Materials Science, Engineering of Nanomaterials
 - Nondestructive analysis of metals and composites

7. Employment Profile

Job Title	Employer	From	To
Assistant Professor	NIT Trichy	05-08-2024	Till Date
Senior Research Engineer (R&D)- Anode	Ola Electric Technology Pvt. Ltd.	04-08-2022	03-04-2024
Assistant Manager (R&D)	Epsilon Advanced Materials Pvt. Ltd.	15-07-2021	11-07-2022

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

Examination	Board / University	Year	Division/ Grade	Subjects
Ph.D.	Homi Bhabha National Institute (HBNI)- Indira Gandhi Centre for Atomic Research.	2021	First	Physics
M.Sc.	CEG Campus- Anna University.	2012	First	Materials Science
B.Sc.	Presidency College- Madras University.	2009	First	Physics
Higher Secondary School (+2 Class)	State Board of Tamil Nadu	2005	First	Maths-Biology
SSLC (10 th Class)	State Board of Tamil Nadu	2003	First	Maths, Science, Social Science

9. Academic/Administrative Responsibilities within the University

Position	Faculty/Department/Centre/Institution	From	To
M. Tech. Project Coordinator	NITT	July 2024	Till date

10. Academic/Administrative Responsibilities outside the University

Position	Institution	From	To
NIL			

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11. Awards, Associateships etc.

Year of Award	Name of the Award	Awarding Organization
2020	Best poster award (First prize)	Indira Gandhi Centre Atomic Research (IGCAR)
2018	Best Paper award (First prize)	IITM & IGCAR
2018	Best poster award (First prize)	IITM & IGCAR

12. Fellowships

Year of Award	Name of the Fellowship	Awarding Organization	From (Month/Year)	To (Month/Year)
2015	Junior Research Fellow	Department of Atomic Energy	March 2015	February 2017
2017	Senior Research Fellow	Department of Atomic Energy	March 2017	February 2020

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
NIL				

15. Number of PhDs guided

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

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
26-27 October 2016	Vibrational and acoustic emission	International Conference	Participant	GITAM University	Visakhapatnam, Andhra Pradesh

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	techniques for tool wear monitoring in metal matrix composites				
14-17 December 2018	Study of cutting tool damage during drilling of Al-5%SiC metal matrix composite using acoustic emission technique	International Conference	Presenter	IITM & IGCAR	Chennai, Tamil Nadu
28-29 January 2020	Acoustic emission signal analysis to characterize the damage mechanism during drilling of metal matrix composite	National Level	Presenter	IGCAR	Chennai, Tamil Nadu
July (9-11), 2014	TiO ₂ -Sb ₂ S ₃ Nano-Structure for photovoltaic applications	International Conference	Co-author	university of Delhi	Delhi
28 June to 03 July 2015	Structural, optical and photovoltaic characteristics of Sb ₂ S ₃ sensitized ZnO/TiO ₂ nanorods	International Conference	Co-author	Material Research Society, Singapore.	Singapore.

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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
NIL				

18. Invited Talks delivered

Topic	Date	Inviting Organization
NIL		

19. Membership of Learned Societies

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

20. Academic Foreign Visits

Country	Duration of Visit	Programme
NIL		

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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)
K. Thirukkumaran and C. K. Mukhopadhyay	Acoustic emission signal processing for tool wear analysis during drilling of Al boroncarbide composite	Ultrasonics	124	106762	2022	3.8
K. Thirukkumaran and C. K. Mukhopadhyay	Analysis of acoustic emission signal to characterization the damage mechanism during drilling of Al Silicon carbide metal matrix composite	Silicon	13	309–325	2021	2.8
K. Thirukkumaran, M. Menaka, C. K. Mukhopadhyay and B. Venkataraman	A study on temperature rise, tool wear and surface roughness during drilling of Al silicon carbide composite	Arabian Journal of Science and Engineering	45	5407–5419	2020	2.6
K. Thirukkumaran, C.K.Mukhopadhyay, T. K Haneef and S.Bagavathiyappan	Acoustic emission and infrared thermography studies during drilling of hybrid metal	Insight -Non-Destructive Testing and Condi	61(5)	249-256	2019	1.1

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	matrix composite	on monitoring				
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(B) Patents

Author(s)	Title of Paper	Journal	File (No.)	Year	Impact Factor of the Journal (Optional)
P. Elamathi, K. Thirukkumaran, and P. Gurunathan	Surface Modified Binder for Dry Electrode composite and preparations thereof	Indian Patent	202441 029923	2024	--
K. Thirukkumaran, Mohammad Shakeel Akther, P. Gurunathan, and Rajesh Mekkat	Natural Graphite Blend anode active materials for dry electrode process	Indian Patent	202341 090017	2023	--
Neelakshi Sharma, K. Thirukkumaran, and Rajesh Mekkat	Electrolyte additive for solvent- free electrode	Indian Patent	202341 039359	2023	--

(C) Conferences/Workshops/Symposia Proceedings

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

(D) Books & Monographs

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