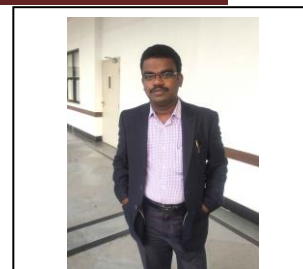


# National Institute of Technology, Tiruchirappalli: Performa for CV of Faculty/ Staff Members

## Curriculum Vitae



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

1.	Name	<b>N. Samsudeen</b>
2.	Designation:	Assistant Professor
3.	Office Address:	Assistant Professor, Department of Chemical Engineering, NIT Tiruchirappalli-15
4.	Telephone (Direct) (Optional): Telephone:            Extn (Optional): Mobile (Optional):	04312503119
5.	Email (Primary): <a href="mailto:samsudeen@nitt.edu">samsudeen@nitt.edu</a>	Email (Secondary) : <a href="mailto:dheen003@gmail.com">dheen003@gmail.com</a>
6.	Field(s) of Specialization:	Bioenergy, Bioelectrochemical System

### 7. Employment Profile

Job Title	Employer	From	To
Assistant Professor (Gr-I)	NITT	12.3.2018	Till Date
Assistant Professor (Gr-II)	NITT	22.09.2008	11.3.2018
SRF (Project)	CECRI	1.4.2008	19.9.2008
JRF (GATE)	CECRI	1.6.2007	31.3.2008

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

Examination	Board / University	Year	Division/ Grade	Subjects
PhD	NITT	2016	First	Chemical Engineering
M. Tech	Anna University	2007	First	Chemical Engineering
B.Tech	Bharathidasan University	2004	First	Petrochemical Technology

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

Position	Faculty/Department/Centre/Institution	From	To
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Hostel warden	NITT	20.07.2019	25.11.2021
Hostel Warden	NITT	1.12.2010	5.11.2015

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

Position	Institution	From	To

### 11. Awards, Associateships etc.

Year of Award	Name of the Award	Awarding Organization
2021-2022	Best Faculty performer	NITT
2016	Young Faculty Award (Wastewater Treatment)	Venus International Faculty Awards-VIFA , Chennai.

### 12. Fellowships

Year of Award	Name of the Fellowship	Awarding Organization	From (Month/Year)	To (Month/Year)
2017-18	B-ACER	DBT	15.7.2017	15.1.2018

### 13. Details of Academic Work

#### (i) Curriculum Development

- Fuel Cell Technology and Batteries and Fuel cells courses are introduced in UG Curriculum

#### (ii) Courses taught at Postgraduate and Undergraduate levels

##### **For PG**

Bioelectrochemical System

##### **For UG**

Transport Phenomena

Chemical Reaction Engineering -II

Batteries and Fuel Cells

Material Science and Technology

#### (iii) Projects guided at Postgraduate level - 42

#### (iv) Other contribution(s)

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

Title of Project	Funding Agency	Duration	Status

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		From	To	Ongoing/ Completed
Development of Graphene Based Nanomaterials for Bioelectricity Generation Through Tannery Wastewater Treatment Using Microbial Fuel Cell	DST	5.11.2022	4.11.2022	Ongoing

15. Number of PhDs guided

Name of the PhD Scholar	Title of PhD Thesis	Role(Supervisor/ Co-Supervisor)	Year of Award
Mr. Tamilmani Jayabalan	Studies on novel nanocomposite cathode catalysts for biohydrogen production from sugar industry wastewater using microbial electrolysis cell	Supervisor	2021

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
SICI Sponsored workshop on Next Gen Fuels: A Sustainable Approach	National	16.3.2022-20.3.2022	Course coordinator	Online Mode, NIT Tiruchirappalli

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International Felicitation conference on EBPPM 2021	International	19.11.2021 – 20.11.2022	Organizing Secretary	Online Mode, NIT Tiruchirappalli
International conference on RTAMGESE 2021	International	12.3.2021 – 13.3.2021	Organizing Secretary	Online Mode, NIT Tiruchirappalli

18. Invited Talks delivered

Topic	Date	Inviting Organization
Bioelectrochemical system for Waste/ wastewater to Bioenergy conversion.”, SPARC sponsored workshop on Recent Technologies on waste to energy conversion	2 – 13th Dec 2019.	Mechanical Engineering Department, NIT Trichy
Biovalorisation of wastes to hydrogen and chemicals”, SPARC sponsored workshop on	2 – 13th Dec 2019	Recent Technologies on waste to energy conversion at Mechanical Engineering Department, NIT Trichy on
Microbial electrochemical system for waste to clean energy”,	June, 10 to 15th, 2019	One-week workshop on Bioenergy, Biofuels and Biorefinning at Chemical Engineering Department, NIT Trichy on.
Wastewater to Clean Energy Through Microbial Electrochemical System”, Two weeks	Nov 18th, 2018.	(Self-supported) workshop at Mechanical Engineering Department, NIT Trichy
Biohydrogen production from wastewater using microbial electrolysis cell”,	3rd August,2017	University of Louisville, Kentucky, USA,
Wastewater to Clean Energy through Bioelectrochemical System” in	20th and 21st, 2016	International Conference on Recent Trend in Microbiology”, Alagappa University, Karaikudi, December
Fuel Cell Technologies	November 14-22,2016	on Global Initiative of Academic Networks (GIAN), Department of Chemical Engineering, NIT, Trichy,
Bioenergy from wastewater using Bioelectrochemical system” on	August 22 – 27, 2016	TEQIP-II sponsored course on “Conceptual Mechanisms Of Transport Operations In Chemical And Biochemical Processes”, Department of Chemical Engineering, NIT,

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Bioenergy Production using Bioelectrochemical system”	May 6 & 7, 2016.	Trichy, TEQIP-II sponsored short term course on Recent Developments in Wastewater Treatment Technologies, NIT, Trichy,
Delivered keynote address in the title of “Green Energy technology for energy management” in Mohammed	30.3.2016.	Sathak Engineering College, Kilakarai, Ramnad
Fuel Cell technologies” in two day workshop on	26-27, Sep 2014	Recent trends in renewable technologies” conducted at Mechanical Engineering Department, NIT Trichy on
Energy production from wastewater using microbial fuel cell” in	12th April, 2014	one day workshop on Hybrid wastewater treatment technologies, NIT Trichy

19. Membership of Learned Societies

Type of Membership (Ordinary Member/ Honorary Member / Life Member)	Organization	Membership No. with date
Life Associate Member	IICHE	LAM 36768
Member	IEI	M-1589711
Member	AICHE	9902187586
Member	International Association of Engineer	177907
Life Member	Indian Desalination Association	LM-512

20. Academic Foreign Visits

Country	Duration of Visit	Programme
Malaysia	3 Days	International conference on MST 2013
United States	6 months	Under B-ACER Fellowship Scheme, DBT

21. Publications

(A) Refereed Research Journals:

Author(s)	Title of Paper	Journal	Volume	Page number	Year	Impact Factor of
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			(No. )	s		the Journal (Optional)
Cijo Mathew,Samsudeen Naina Mohamed,Lenin Singaravelu Devanathan	A comprehensive review of current research on various materials used for developing composite bipolar plates in polymer electrolyte membrane fuel cells doi.org/10.1002/pc.26691	Polymer Composites				
Sandhya Prakash, Kalaichelvi Ponnusamy, Samsudeen Naina Mohamed*,	An insight on Biocathode Microbial Desalination Cell: Current challenges and prospects, International doi.org/10.1002/er.7748	Journal of Energy Research,		1-14	2021	5.164
Aiswaria P, Samsudeen Naina Mohamed*, D.Lenin Singaravelu, Kathirvel Brindhadevi, Arivalagan Pugazhendhi,	A review on graphene / graphene oxide supported electrodes for microbial fuel cell applications: Challenges and prospects, 10.1016/j.chemosphere.2022.133983	Chemosphere ,	296,	133983 ,	2022,	7.086
Kaliaperumal Keruthiga, <b>Samsudeen Naina Mohamed,</b> Nagarajan Nagendra Gandhi, Karuppan Muthukumar	Sugar industry waste-derived anode for enhanced biohydrogen production from rice mill wastewater using artificial photo-assisted microbial electrolysis cell” International <a href="https://doi.org/10.1016/j.ijhydene.2021.03.181">10.1016/j.ijhydene.2021.03.181</a> ,	Journal of Hydrogen Energy,	46	20425-20434	2021	5.8
Boobalan, T., ..... <b>Samsudeen Naina</b>	Bioelectricity generation by natural microflora of septic tank wastewater (STWW) and biodegradation of	Journal of Hazardous Materials,	41(2 )	125228	2021	14.2

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<b>Mohamed, Arun Alagarsamy</b>	persistent petrogenic pollutants by basidiomycetes fungi: An integrated microbial fuel cell system”, <a href="https://doi.org/10.1016/j.jhazmat.2021.125228">10.1016/j.jhazmat.2021.125228</a>					
Tamilmani Jayabalan, Manickam Matheswaran, T. K. Radhakrishnan , <b>Samsudeen Naina Mohamed</b>	Influence of Nickel molybdate nanocatalyst for enhancing biohydrogen production in microbial electrolysis cell utilizing sugar industrial effluent	Bioresource Technology,	320	124284	2021	7.539
Dinesh Bejjanki, K. Muthukumar, T.K. Radhakrishnan , Arun Alagarsamy, Arivalagan Pugazhendhi, <b>Samsudeen Naina Mohamed*</b> ,	Simultaneous bioelectricity generation and water desalination using Oscillatoria sp. as biocatalyst in photosynthetic microbial desalination cell”,	Science of Total Environment,	754	142215	2021	6.551
Ramu SatheeshMurugan, Gujuluva Hari Dinesh, Ramalingam Karthik Raja, Ebenezer Samuel James Obeth, Abhispa Bora, <b>Naina Mohammed Samsudeen,</b>	Dark fermentative biohydrogen production by Acinetobacter junii-AH4 utilizing various industry wastewaters, <a href="https://doi.org/10.1016/j.ijhydene.2020.07.073">10.1016/j.ijhydene.2020.07.073</a>	Int. J. of Hydrogen energy,	16	11297-11304	2021	4.939

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Arivalagan Pugazhendhi, Alagarsamy Arun						
Khadeeja Parveen Kallarakkal, Karuppan Muthukumar, Arun Alagarsamy, Arivalagan Pugazhendhi, <b>Samsudeen Naina Mohamed</b>	Enhancement of biobutanol production using mixotrophic culture of <i>Oscillatoria sp.</i> in cheese whey water”, <a href="https://doi.org/10.1016/j.fuel.2020.119008">10.1016/j.fuel.2020.119008</a>	Fuel	284	119008	2021	5.578
Tamilmani Jayabalan, <b>Samsudeen Naina Mohamed,</b> Manickam Matheswaran, T.K. Radhakrishnan , Arivalagan Pugazhendhi, Arun Alagarsamy	Enhanced biohydrogen production from sugar industry effluent using nickel oxide and cobalt oxide as cathode nanocatalysts in microbial electrolysis cell,	International Journal of Energy Research	45 (12)	17431-17439	2021	5.164
Tamilmani Jayabalan, <b>Samsudeen Naina Mohamed*</b> , Manickam Matheswaran, T.K. Radhakrishnan , Arivalagan Pugazhendhi, Arun	Enhanced biohydrogen production from sugar industry effluent using nickel oxide and cobalt oxide as cathode nanocatalysts in microbial electrolysis cell”, <a href="https://doi.org/10.1002/er.5645">doi.org/10.1002/er.5645</a>	International Journal of Energy Research,		1-9	2020	3.74



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Alagarsamy,						
<b>Samsudeen Naina Mohamed*</b> , Nikhil Thomas, J.Tamilmani, T.Boobalan, Manickam Matheswaran, P.Kalaichelvi, Arun Alagarsamy, Arivalagan Pugazhendhi	Bioelectricity generation using iron (II) molybdate nanocatalyst coated anode during treatment of sugar wastewater in microbial fuel cell”,	Fuel,	277	118119	2020	6.609
Tamilmani Jayabalan, Manickam Matheswaran, <b>Samsudeen Naina Mohammed</b>	NiCo <sub>2</sub> O <sub>4</sub> -graphene nanocatalyst for improving biohydrogen production from sugar industry wastewater using microbial electrolysis cell”,	Renewable Energy,	154	1144-1152	2020	8.634
<b>Samsudeen Naina Mohamed*</b> , Pohekar Ajit Hiraman, K. Muthukumar, Tamilmani Jayabalan	Bioelectricity production from kitchen wastewater using microbial fuel cell with photosynthetic algal cathode”,	Bioresource Technology	295	122226	2020	9.642
Tamil Mani Jayabalan, Matheswaran Manickam, <b>Samsudeen. N</b>	Enhancing Biohydrogen Production from Sugar Industry Wastewater Using Metal Oxide /Graphene Nanocomposite Catalysts in Microbial Electrolysis Cell”,	International Journal of Hydrogen Energy	45	7647-7655	2020	4.939

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Boobalan Thulasinathan, .... <b>Samsudeen Naina Mohamed,</b> Arun Alagarsamy	Bioelectricity generation and analysis of anode biofilm metabolites from septic tank wastewater in microbial fuel cells, Doi: 10.1002/er.5734	International Journal of Energy Research,			2020	5.164
Satheesh Murugan Ramu,... <b>Samsudeen Naina Mohammed,</b> Arun Alagarsamy,	Fermentative hydrogen production and bioelectricity generation from food based industrial waste: An integrative approach”,	Bioresource Technology,	310	123447	2020	9.642
<b>Samsudeen N*</b> , Joshua Spurgeon, Manickam Matheswaran, Jagannadh Satyavolu	Simultaneous biohydrogen production with distillery wastewater treatment using modified microbial electrolysis cell”,	International Journal of Hydrogen Energy,	45 (36)	18266-18274	2020	4.939
<b>Samsudeen. N*</b> , J, Tamilmani, K, Muthukumar	Simultaneous Bioenergy generation and Carbon Dioxide sequestration from food wastewater using Algae Microbial Fuel Cell”, <i>doi:</i> 10.1080/15567036.2019.1666932	Energy Sources, Part A: Recovery, Utilization, and Environmental Effects”,		1-9	2019	<b>1.184</b>
Tamilmani Jayabalan, Manickam Matheswaran, <b>Samsudeen Naina Mohammed*</b> ,	Biohydrogen production from sugar industry effluents using nickel-based electrode materials in microbial electrolysis cell”,	International Journal of Hydrogen Energy, (2019)	44	17381–17388.	2019	<b>4.539</b>
Boobalan.T, <b>Samsudeen. Naina</b>	Comparative study on Cronobacter sakazakii and Pseudomonas otitidis	Fuel,	248	47-55.	2019	<b>5.578</b>

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Mohamed, ... Arun Alagarsamy,	isolated from septic tank wastewater in microbial fuel cell for bioelectricity generation					
S. Aiswarya Devi, M. Harshiny, J. Tamilmani, N. Samsudeen, C. Nivedhini Iswarya, M. Matheswaran, (2019)	Enhancing power generation and treatment of dairy waste water in microbial fuel cell using Cu-doped iron oxide nanoparticles decorated anode”, <a href="https://doi.org/10.1016/j.energy.2019.01.102">10.1016/j.energy.2019.01.102</a>	Energy,	172 (1)	173- 180	2018	<b>6.082</b>
Harshiny Muthukumar, Nivedhini Iswarya Chandrasekaran, Samsudeen Naina Mohamed, Saravanan Pichiah, Matheswaran Manickam,	Iron oxide nano-material: physicochemical traits and in vitro antibacterial propensity against multidrug resistant bacteria”, <a href="https://doi.org/10.1016/j.jiec.2016.09.014">10.1016/j.jiec.2016.09.014</a> [	<i>Journal of Industrial and Engineering Chemistry,</i>	45	121– 130	2017	<b>5.278</b>
Harshiny Muthukumar, N. Samsudeen, Nivedhini Iswarya Chandrasekaran, Matheswaran Manickam,	Biosynthesized FeO nanoparticles coated carbon anode for improving the performance of microbial fuel cell. <i>International</i> <a href="https://doi.org/10.1016/j.ijhydene.2017.07.084">10.1016/j.ijhydene.2017.07.084</a>	<i>Journal of Hydrogen Energy,</i>	42	26488- 26495	2017	<b>4.539</b>
Samsudeen, N., T.K. Radhakrishnan, M. Matheswaran,	Enhancement of Bioelectricity Generation from Treatment of Distillery Wastewater using Microbial Fuel Cell, <a href="https://doi.org/10.1002/ep.12734">10.1002/ep.12734</a>	<i>Environmental Progress and Sustainable Energy,</i>	37(2 )	663- 668	2018	<b>1.989</b>
Harshiny	“Effect of Iron doped Zinc	International	44	2407-	2019	<b>4.539</b>

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Muthukumar, <b>Samsudeen N</b> , Nivedhini Iswarya C, Aiswarya Devi S, Arivalagan P, Matheswaran M,	oxide nanoparticles coating in the anode on current generation in microbial electrochemical cells”,	Journal of Hydrogen Energy,	(4)	2416		
<b>Samsudeen, N.</b> , T.K. Radhakrishnan , M. Matheswaran,	Effect of isolated bacterial strains from the distillery wastewater on power production generation in microbial fuel cell.	Process Biochemistry	51	1876–1884.	2016	<b>2.952</b>
<b>Samsudeen, N.</b> , Shivanand Chavan, T.K. Radhakrishnan , M. Matheswaran,	Performance of microbial fuel cell using chemically synthesized activated carbon coated anode, doi: 10.1063/1.4955110	<i>J. Renewable and Sustainable Energy</i> 8, (2016);	8	044301	2016	<b>1.611</b>
<b>Samsudeen, N.</b> , T.K. Radhakrishnan , M. Matheswaran,	Bioelectricity production from microbial fuel cell using mixed bacterial culture isolated from distillery wastewater.	<i>Bioresour. Technol.</i>	195	242-247.	2015	<b>7.539</b>
<b>Samsudeen, N.</b> , A. Sharma, T.K. Radhakrishnan , M. Matheswaran,	Performance investigation of multi-chamber microbial fuel cell: An alternative approach for scale up system.	<i>J. Renewable Sustainable Energy</i>	7	043101	2015	<b>1.611</b>
<b>Samsudeen, N.</b> , T.K. Radhakrishnan , M. Matheswaran,	Performance comparison of triple and dual chamber microbial fuel cell using distillery wastewater as a substrate.	<i>Environ. Prog. Sustainable Energy</i>	34	589-594.	2015	<b>1.989</b>
<b>Samsudeen. N</b> , Pol Raviraj, Anantharaman	CFD simulation studies on the performance of Rectangular Coil Heat exchanger,	AIP Conference proceedings,	135		2010	

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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
<b>Samsudeen Naina Mohamed*</b> , K.M. Meera Sheriffa Begum,	Bioelectrochemical System: Waste/Wastewater to Bioenergy Conversion Technology”,	CRC Press, India, 2021	2021	978-0-367-45908-6
<b>Samsudeen Naina Mohamed*</b> , Manickam Matheswaran, Tamilmani Jayabalan,	Microbial electrolysis cells for converting wastes to biohydrogen”,	Biovalorisation of Wastes to Renewable Chemicals and Biofuels, Elsevier,	2019	978-0-12-817951-2
<b>N. Samsudeen*</b> , <b>M. Matheswaran,</b>	Bioremediation of Industrial Wastewater Using Bioelectrochemical Treatment”, Bioremediation: applications for environmental protection and management.	Springer Singapore,	2018	978-981-10-7485-1
<b>N. Samsudeen*</b> , Sruti Dammalapati, Souvik Mondal	Production of Biodiesel from Neem Oil Feedstock Using Bifunctional Catalyst, Energy and Environment Engineering	Springer Nature Singapore Pte Ltd., 2017	2017	978-981-10-2675-1

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and Lekshmi Unnithan,				
<b>N. Samsudeen*</b> , Arvind Pari and B. Soundarya	Experimental Studies on Electricity Production and Removal of Hexavalent Chromium in Microbial Fuel Cell”, Energy and Environment Engineering,	Springer Nature Singapore Pte Ltd., 2017	2017	978-981- 10-2675-1