

**National Institute of Technology, Tiruchirappalli:
Performa for CV of Dr.N.Samsudeen**

	University		Class	Technology
12 th Std	State Board	2000	First Class	English, Tamil, Biology, Chemistry, Physics and Mathematics
10 th Std	State Board	1998	First Class	English, Tamil, Science, Social Science and Mathematics

9. Academic/Administrative Responsibilities within the University

Position	Faculty/Department/Centre/Institution	From	To
Warden	JADE Hostel , NIT,Trichy	Dec 2010	Nov 2015
Class Committee Chairman	M.Tech First Year, Chemical Engineering Department	July 2016	May 2017
PAC Committee member	Chemical Engineering Department	July 2013	May 2015
Faculty Advisor	Alchemy, Chemical Engineering Association	June 2014	May 2015
Project Coordinator	Chemical engineering Department,	Dec 2014-	May 2015
Project Coordinator	Chemical engineering Department,	Dec 2015-	May 2016

10. Academic/Administrative Responsibilities outside the University

Position	Institution	From	To
NIL			

11. Awards, Associateships etc.

Year of Award	Name of the Award	Awarding Organization
2015	Young Faculty Award	Venus International Faculty Awards-VIFA 2016, Chennai

12. Fellowships

Year of Award	Name of the Fellowship	Awarding Organization	From (Month/Year)	To (Month/Year)
NIL				

13. Details of Academic Work

(i) Curriculum Development :

1. Fuel Cell Technology syllabus has been framed,

**National Institute of Technology, Tiruchirappalli:
Performa for CV of Dr.N.Samsudeen**

2. Materials Science and Technology syllabus modified.
3. Two experiments, (Plug flow followed by Mixed flow and Mixed flow followed by Plugflow) was introduced in Chemical Reaction Engineering Lab

(ii) Courses taught at Postgraduate and Undergraduate levels

Post Graduate

- Bioprocess Engineering

Under Graduate

- Materials Science and Technology
- Chemical Reaction Engineering – II
- Chemical Reaction Engineering Laboratory
- Process Control Laboratory
- Industrial Lecture

(iii) Projects guided at Postgraduate level

<i>S.No</i>	<i>Student Name</i>	<i>Title</i>	<i>Month and year</i>
1.	Pol Raviraj (202108022)	CFD Simulation Studies on Performance of Rectangular Coil Heat exchanger (RCHE)-phase I	Dec, 2009
2.	Pol Raviraj (202108022)	Studies on Performance of Finned Tube Heat Exchanger-phase II	May 2010
3.	M.Kamalnath (202109009)	Production of Biodiesel from Crude Jatropha Curcas Oil (CJCO) using KF/CaO - Mgo as Catalyst-phase I	Dec, 2010
4.	M.Kamalnath (202109009)	Production of Biodiesel from Sunflower Oil Using KF/Cao-Mgo Catalyst Using RSM-phase II	May 2011
5.	K.Mahesh (202309029)	Testing of Photo Voltaic Air Collectors-phase I	Dec, 2010
6.	K.Mahesh (202309029)	Experimental Studies on Performance analysis of Solar Photovoltaic Air Collector-phase II	May 2011
7.	Amit Ranjan Verma (202110002)	Experimental Studies on electricity production from effluent Treatment using Bio electrochemical System- phase I	Dec 2011
8.	Amit Ranjan Verma (202110002)	Experimental Studies On Factors Affecting The Performance Of Microbial Fuel Cell: Effect Of Anolyte- phase II	May 2012
9.	Ratnesh yadav (202311005)	Experimental studies on Performance Of Microbial Fuel Cell: Effect of Electrode Materials and catholyte pH-phase I	Dec 2012
10	Ratnesh yadav (202311005)	Bioelectricity Generation from Biocathode Microbial Fuel Cell- phase II	May 2013

**National Institute of Technology, Tiruchirappalli:
Performa for CV of Dr.N.Samsudeen**

11	Manvendra Pratap singh (202111006)	Experimental studies on performance of Dual anode chamber microbial fuel cell- phase I	Dec 2012
12	Manvendra pradap singh (202111006)	Experimental studies on performance of Dual anode chamber microbial fuel cell- phase II	May 2013
13	Amit sharma (202112022)	Studies on performance of multi-compartment microbial fuel cell-Phase I	Dec 2013
14	Amit sharma (202112022)	Bioelectricity production from distillery wastewater using multi-compartment microbial fuel cell- Phase II	May 2014
15	Shivanand chavan (202113022)	Experimental Studies on Performance Of Microbial Fuel Cell: Anode Surface Modification Using Biomaterial	Dec 2014
16	Chandreshwar jaiswar (202113014)	Bioremediation Of High Strength Distillery Spent Wash Accompanied With Electricity Generation In Dual Chamber Microbial Fuel Cell	Dec 2014
17	Chandreshwar jaiswar (202113014)	Constant voltage output in two-chamber microbial fuel cell under model predictive control	May 2015
18	Jana Kameshwara Rao (202114026)	Electricity production from the microbial fuel cell: Effect of cathode surface modification	Dec, 2015
19	Jana Kameshwara Rao (202114026)	Study on Microbial Fuel Cell: The Effect of leaf extract synthesized iron oxide nanoparticle coated anode	May 2016

(iv) Other contribution(s)

14. Details of Major R&D Projects

Title of Project	Funding Agency	Duration		Status
		From	To	Ongoing/ Completed
Sustainable electricity production in industrial wastewater using bioelectrochemical system	SCSP-TSP (MHRD) MHRD, Delhi	2014	2017	Ongoing
Continuous Bioelectricity Production using Bio-electrochemical System during Treatment of Distillery Wastewater	TNSCST	2012	2013	Completed
Enhancement Of Electricity Production	TNSCST	2011	2012	Completed

National Institute of Technology, Tiruchirappalli: Performa for CV of Dr.N.Samsudeen

From Distillery Effluent Using Bio-cathode Microbial Fuel Cell				
----------------------------------------------------------------	--	--	--	--

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)

1. Attended TEQIP-II sponsored workshop on “Product and Process Optimization using Designed Experiments ”, Department of Textile Technology, IIT Delhi, 18th & 20th March 2016
2. Attended TEQIP-II sponsored workshop on “Electrochemical technologies in hydrogen production and utilization for electrical energy”, Department of chemical engineering, IIT Delhi, 8th & 9th October 2015.
3. Attended ISTE workshop on “Engineering Thermodynamics” under the national mission on education through ICT from 11th to 21st December, 2012 to be held at the remote centre, National Institute of Technology, Tiruchirappalli.
4. Attended ISTE workshop on “Computational Fluid Dynamics”, under the national mission on education through ICT from 12th to 22nd June, 2012 to be held at the remote centre, National Institute of Technology, Tiruchirappalli.
5. Attended Two-week ISTE Workshop on “Heat transfer” under The National Mission on Education through ICT from 29th November to 10th December 2011 to be held at the remote centre, National Institute of Technology, Tiruchirappalli.
6. Attended the SERC School and Sixth National Symposium on “Rheology of Complex Fluids” organized by the IIT G during January 03-03,2012
7. Attended Industry-Academia workshop on “Refining and Petrochemicals” conducted by Petroleum Federation of India, LKMT and CPCL Chennai from 16th to 19th march 2011
8. Attended summer school on “Petroleum Refining and Petrochemicals” conducted at IPM, Gurgaon from 7th 11th June 2010.

National Institute of Technology, Tiruchirappalli: Performa for CV of Dr.N.Samsudeen

9. Attended DST Sponsored SERC School on “Application of Novel Artificial Intelligence and Machine Learning Techniques for chemical and petrochemical industries” held at MIT Pune from 28th Dec, 2009 to 2nd January 2010.
10. Attended Faculty Development program on “Chemical Systems Modeling and Simulation” conducted at NIT, Tiruchirappalli from 13th July to 17th July, 2009.
11. Attended workshop on “Advanced chemical process design” (under TEQIP community services) conducted at NIT, Tiruchirappalli on 20th October 2008.

17. Workshops/ Symposia/ Conferences/ Colloquia/Seminars Organized (as Chairman/ Organizing Secretary/ Convener / Co-Convener)

Title of Activity	Level of Event (International/ National/ Local)	Date (s)	Role	Venue
TEQIP II sponsored Two day short term course “Recent Developments in Wastewater Treatment Technologies	National Level	May 6 & 7	Coordinator	NIT, Trichy

18. Invited Talks delivered

1. Delivered a guest lecture in the title of “Fuel Cell Technologies” on Global Initiative of Academic Networks (GIAN), Department of Chemical Engineering, NIT, Trichy, November 14-22, 2016
2. Delivered a guest lecture in the title of “Bioenergy from wastewater using Bioelectrochemical system” on TEQIP-II sponsored course on “Conceptual Mechanisms Of Transport Operations In Chemical And Biochemical Processes”, Department of Chemical Engineering, NIT, Trichy, August 22 – 27, 2016
3. Delivered a guest lecture in the title of “Bioenergy Production using Bioelectrochemical system” on TEQIP-II sponsored short term course on Recent Developments in Wastewater Treatment Technologies, NIT, Trichy, May 6 & 7, 2016.
4. Delivered keynote address in the title of “Green Energy technology for energy management” in Mohammed Sathak Engineering College, Kilakarai, Ramnad 30.3.2016.

National Institute of Technology, Tiruchirappalli: Performa for CV of Dr.N.Samsudeen

5. Delivered a guest lecture in “Fuel Cell technologies” in two day workshop on Recent trends in renewable technologies” conducted at Mechanical Engineering Department, NIT Trichy on 26-27, Sep 2014
6. Delivered a guest lecture in “Energy production from wastewater using microbial fuel cell” in one day workshop on Hybrid wastewater treatment technologies on 12th April, 2014 at Chemical Engineering Department, NIT Trichy
7. Delivered an invited talk in short term course on “Methodology of preparation of technical interview for campus placement for prefinal year students, organized by Department of Chemical Engineering, NIT, Trichy during 13th and 14th march 2013.

19. Membership of Learned Societies

Type of Membership (Ordinary Member/ Honorary Member / Life Member)	Organization	Membership No. with date
Life Associate Member	Institute of Chemical Engineer	LAM 36768
Member	International Association of Engineers (IAENG)	177907

20. Academic Foreign Visits

Country	Duration of Visit	Programme
Malaysia	27 th to 29 th August 2013	Paper presentation in International Confernece 11 th International Conference on Membrane Science and Technology 2013 (MST 2013) organized by Advanced Membrane Technology Research Centre (AMTEC), Universiti Teknologi Malaysia (UTM),

21. Publications

(A) Refereed Research Journals:

1. **Samsudeen, N.,** T.K. Radhakrishnan, M. Matheswaran, (2015) Bioelectricity production from microbial fuel cell using mixed bacterial culture isolated from distillery wastewater. *Bioresour. Technol.* 195, 242-247.
2. **Samsudeen, N.,** T.K. Radhakrishnan, M. Matheswaran, (2015) Performance comparison of triple and dual chamber microbial fuel cell using distillery wastewater as a substrate. *Environ. Prog. Sustainable Energy* 34, 589-594.

National Institute of Technology, Tiruchirappalli:
Performa for CV of Dr.N.Samsudeen

3. **Samsudeen, N.,** A. Sharma, T.K. Radhakrishnan, M. Matheswaran, (2015) Performance investigation of multi-chamber microbial fuel cell: An alternative approach for scale up system. *J. Renewable Sustainable Energy* 7, 043101.
4. **Samsudeen, N.,** T.K. Radhakrishnan, M. Matheswaran, (2016) Effect of isolated bacterial strains from the distillery wastewater on power production generation in microbial fuel cell. *Process Biochemistry*. (doi:10.1016/j.procbio.2016.06.007).
5. **Samsudeen, N.,** Shivanand Chavan, T.K. Radhakrishnan, M. Matheswaran, (2016) Performance of microbial fuel cell using chemically synthesized activated carbon coated anode, *Journal of Renewable and Sustainable Energy* 8, 044301 (2016); doi: 10.1063/1.4955110
6. 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”, *Journal of Industrial and Engineering Chemistry*, Accepted.
7. Harshiny Muthukumar, **N. Samsudeen,** Nivedhini Iswarya Chandrasekaran, Matheswaran Manickam, Effect of FeO nanoparticles coated anodes on power production from distillery wastewater using microbial fuel cell. *Surface and Coatings Technology*, Revision submitted.
8. **Samsudeen, N.,** T.K. Radhakrishnan, M. Matheswaran, (2015) Enhancement Of Bioelectricity Generation from Treatment of Distillery Wastewater using Microbial Fuel Cell, *Environmental Progress and Sustainable Energy*, Under Review

(B) Conferences/Workshops/Symposia Proceedings

International

1. **N. Samsudeen,** Sruti Dammalapatib , Souvik Mondal , Lekshmi Unnithand, “Production of Biodiesel from Neem Oil Feedstock using Bifunctional Catalyst., International Conference on International Conference on Advances in Chemical Engineering, NITK Surathkal, India – Dec, 20-22, 2015
2. **N. Samsudeen,** B Soundarya, Arvind Pari, “ Experimental studies on Electricity Production and Removal of Hexavalent Chromium In Microbial Fuel Cell” ., International Conference on International Conference on Advances in Chemical Engineering, NITK Surathkal, India – Dec, 20-22, 2015

National Institute of Technology, Tiruchirappalli: Performa for CV of Dr.N.Samsudeen

3. **N.Samsudeen**, T.K.Radhakrishnan, M.Matheswaran, “Electricity production in multi-chamber Microbial Fuel cell: Effect of system architecture., International conference on Green Technology for Environmental Pollution Prevention and Control, NIT Trichy, 27-29 September, 2014.
4. Chandreshwar Jaiswar, Shivanand Chavan, **N.Samsudeen**, T.K.Radhakrishnan, M.Matheswaran. “Bioelectricity production from high strength molasses wastewater using dual chamber microbial fuel cell” conducted in NIT, Trichy, 27-29 September, 2014
5. **N.Samsudeen**, T.K.Radhakrishnan, “Influence of operating parameter on electricity generation in Microbial Fuel Cell during Distillery Wastewater treatment” 11th International Conference on Membrane Science and Technology 2013 (MST 2013) organized by Advanced Membrane Technology Research Centre (AMTEC), Universiti Teknologi Malaysia (UTM), Malaysia, 27-29 August, 2013.
6. **N Samsudeen**, M.Matheswaran, T.K.Radhakrishnan,” Electricity production from distillery wastewater using triple chambered microbial fuel cell”, International conference on Water Desalination, treatment and Management & InDACON 2013, MNIT, Jaipur February 21-21,2013.
7. Saurabh Dudeja, **N.Samsudeen**, M.Matheswaran, T.K.Radhakrishnan, “Bioenergy production from treatment of Real Organic (Distillery) Wastewater using Bioelectrochemical System” 1st international conference on BEST, Arunai Engineering College, Tamilnadu, January, 27-30,2013.
8. **N.Samsudeen**, T.K.Radhakrishnan, M.Matheswaran, M.Amit Ranjan Verma “Electricity Production from Distillery Effluent Using Dual Chamber Microbial Fuel Cell (DCMFC): Effect of Membrane” in 2nd International Conference on Advanced Oxidation Process, Kerala **Society Of Environmental Chemistry And Allied Sciences (SECAS) C/O School of Environmental Sciences, M.G University, Kottayam on 5-8 October, 2012.**
9. **N.Samsudeen**, N.Anantharaman and Pol.Raviraj, “CFD simulation studies on Performance of Rectangular Coil Heat Exchanger (RCHE)” in ICMOC conducted in NIT, Durgapur, 28-30th October 2010 and it was published in AIP conference Proceedings, October, 2010.

National

National Institute of Technology, Tiruchirappalli:
Performa for CV of Dr.N.Samsudeen

1. N. Nagachaitanya, **N.Samsudeen**, M.Matheswaran. “Effect of anolyte pH on the performance of microbial fuel cell during treatment of distillery effluent”, conducted by Sri Chandrasekharendra Saraswathi Viswa mahavidyalaya ,Kanchipuram, Tamilnadu 6-7, march, 2014
2. **N.Samsudeen**, M.Kamalnath, “Production of Biodiesel from Crude Jatropha Curcas Oil (CJCO) using KF/Cao - Mgo as Catalyst” in Recent Advances in Chemical Engineering (RACET) conducted by Indian Institute of Chemical Engineers – Kochi Regional Centre on 10-12 March 2011.

(C) Books & Monographs

Author(s)	Title of Book/Monograph	Name of Publishers	Year of Publication	ISSN/ISBN Number
N. Samsudeen, Sruti Dammalapati, Souvik Mondal and Lekshmi Unnithan	Materials, Energy and Environment Engineering	Springer Nature Singapore Pte Ltd.	2016	978-981-10-2674-4
Experimental Studies on Electricity Production and Removal of Hexavalent Chromium in Microbial Fuel Cell	Materials, Energy and Environment Engineering	Springer Nature Singapore Pte Ltd.	2016	978-981-10-2674-4

National Institute of Technology, Tiruchirappalli: Performa for CV of Dr.N.Samsudeen

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

I am Dr. N.Samsudeen working as an Assistant Professor, Department of Chemical Engineering, National Institute of Technology, Tiruchirappalli, India. I born on 11th may 1982 in Aruppukottai, Virudhunagar district, Tamilnadu, India. I completed PhD (Chemical Engg.) in the department of chemical engineering, National Institute of Technology, Tiruchirappalli, Tamilnadu on February 24th 2016. The topic of my PhD thesis is “Studies on Bioelectricity Production from Distillery Wastewater using Microbial Fuel Cell (MFC)”. The main aim of thesis is to investigate the energy production in the form of electricity as well as treatment efficiency (COD Removal) from distillery wastewater using MFC by varying parameters such as microorganism, electrode materials and system design. I did M.Tech. (Chemical Engineering) from Coimbatore Institute of Technology, Coimbatore, affiliated to Anna University Chennai, Tamilnadu, India in 2007. I did B.Tech (Petrochemical Technology) programme in Bharathidasan University, Tiruchirappalli, Tamilnadu, India in 2004.

I joined as an Assistant Professor in the Department of Chemical Engineering, National Institute of Technology, Tiruchirappalli, Tamilnadu, India on 22nd September 2008. Earlier, I worked as Senior Research Fellow (Project) in Central Electrochemical Research Institute, Chennai unit, Chennai from 1st march, 2008 to 19th September 2008 and worked as a Junior Research Fellow (GATE) in Central Electrochemical Research Institute, Chennai unit, Chennai from 1st June, 2007 to 31st March 2008. My research areas are Fuel Cells biodiesel production, bioelectrochemical techniques, Biosorption etc.

I have published Six International reputed Journals in Bioresource Technology, Process Biochemistry, Journal of Engineering Chemistry and Research, Environmental Progress and Sustainable Energy, Journal of Renewable and Sustainable energy. Two more papers are under review in Journal of Surface and Coating Technology, and Environmental progress and sustainable energy. I have presented paper in 9 international conferences and 2 national conferences and published in conference proceedings with ISBN number. Two papers have been accepted for the book chapter in the springer (Book Title: Materials, Energy and Environment Engineering, Book Subtitle: Select Proceedings of ICACE 2015, ISBN: 978-981-10-2674-4).

I have received a project from MHRD (Project Proposal under Scheduled Caste Sub Plan (ScSp), Tribal Sub Plan (Tsp) And Persons with Disabilities (PwD) under MHRD

National Institute of Technology, Tiruchirappalli: Performa for CV of Dr.N.Samsudeen

Sponsored Scheme) with the worth of approximately Rs. 35 lakhs in the field of Microbial Fuel Cell. I have submitted the project proposal under Extra Mural Research (Individual Centric) and it is under consideration of Expert committee Stage. My students have received two project fund Tamilnadu Science and Technology (TNSCST) under Student project scheme (Rs.10000/- and Rs.7500/-) in the year of 2012 and 2013.

I have conducted a short term course and delivered Six guest Lecture on various topics in and outside the college. I have attended eleven short term course/Workshop in IITs, NITs, Research Institute. Currently, I am guiding one PhD student, and two M.Tech Students. I guided 18 M.Tech and 12 B.Tech thesis. I am being life Associate Member (LAM36768) and member (Member Number: 177907) in Indian Institute of Chemical Engineers, and international Association of Engineers. I am reviewer of several journals like Biotechnology and Applied Biochemistry, Environmental Progress and Sustainable Energy and Environmental Technology etc.