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

Curriculum Vitae

1. Name **Dr.S.Saravanan**
2. Designation: Assistant Professor
3. Office Address: Department of Chemical Engineering, NIT, Trichy – 15.
4. Telephone (Direct) (Optional): Telephone : 0431-2503116
   Mobile (Optional): 9894140206
5. Email (Primary):saravanans@nitt.edu Email (Secondary): saravanans78@gmail.com
6. Field(s) of Specialization: Biochemical Engineering

7. Employment Profile

Job Title	Employer	From	To
Assistant Professor	Department of Chemical Engineering, NIT,Trichy - 15	12.07.2007	Till date
Research Associate (RA)	Central Leather Research Institute(CSIR), Adyar, Chennai, INDIA	April 2007	July 2007
Senior Research Fellow (SRF)	Department of Chemical Engineering, A.C.College of Technology, Anna University, Chennai, INDIA	Nov 2003	Oct 2006
Lecturer	Annai Teresa College of Engineering, Tirunavallur.	25/02/2003	20/11/2003

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

Examination	Board / University	Year	Division/ Grade	Subjects
Ph.D	Anna University	Dec'2008	-	Chemical Engineering
M.Tech	Anna University	Jan'2003	First Class with Dist.	Chemical Engineering
B.Tech	Madras University	April 2000	First Class	Chemical Engineering
HSC	State Board	April 1996	First Class	Maths, Physics,

				Chemistry and Biology
SSLC	State Board	April 1994	First Class	Maths, Physics, Chemistry and Biology

9. Academic/Administrative Responsibilities within the University

Position	Faculty/Department/ Centre/Institution	From	To
Associate Warden of Agate Hostel	NIT, Trichy	14/07/2007	27/08/2008
Institute Stock Verification officer for Production engineering Department	NIT, Trichy	2009	2016
Energy & Environmental Engineering Course coordinator	NIT, Trichy	2008	2015
Acted as PAC Chairman for 1 Year M.Tech Plant Design	NIT, Trichy	2007	2008
Acted as PAC Chairman for III Year B.Tech	NIT, Trichy	2009	2010
Acted as PAC Chairman for Final Year B.Tech	NIT, Trichy	2011	2012
Act as a Faculty Adviser for ALCHEMY-2013	NIT, Trichy	2012	2013
Acted as PAC Chairman for II Year B.Tech	NIT, Trichy	2016	2017

10. Academic/Administrative Responsibilities outside the University

Position	**Institution**	**From**	**To**
Lab Examiner	Anna University	2009	2015
University Question paper scrutinizer	Anna University	2012	2014
University Question paper setter	Anna University	2009	2016
University Question paper setter	Vivekanandha University	2013	2016
University Question paper setter	Dr.M.G.R University	2014	2016

11. Awards, Associateships etc.

Year of Award	Name of the Award	Awarding Organization

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
   a. Process Optimization
   b. Environmental Impact Assessment
   c. Energy and Environmental Engineering

(ii) Courses taught at Undergraduate levels
   a. Energy and Environmental Engineering
   b. Fluidization Engineering
   c. Advanced Heat Transfer
   d. Applied Mathematics in Chemical Engineering
   e. Heat transfer

(iii) Courses taught at Postgraduate
   a. Environmental Impact Assessment
   b. Industrial Waste Management
   c. Process optimization

(iv) Projects guided at Postgraduate level

Sl. No	**Name of the Thesis**	**Year**
1	Extraction of globular proteins using PEG-Salt aqueous two phase system	2009
2	Adsorption studies of chromium (VI) on activated carbon and their application in treatment of industrial effluents	2009
3	Preparation and characterization of adsorbents from biomass and its application in environmental remediation	2010
4	Thermodynamic modeling of PEG-Sodium citrate water based aqueous two phase system	2010
5	Modelling of inverter for GRID connected solar photovoltaic array	2011
6	Optimization of partitioning coefficient of globular protein in aqueous two phase polymer-salt system (ATPS)	2011

7	Studies on Protein Extraction from Brewery wastes by Aqueous Two Phase System	2012
8	Adsorption of oil from waste water using plastic waste	2012
9	Removal of Methylene blue dye aqueous solution by using bio-adsorbents	2013
10	Studies on effect of binodal curve in aqueous two phase polymer salt system by varying molecular weight, temperature and pH.	2013
11	Removal of Congo red and Eosin red using low cost adsorbents	2013
12	Utilization of biomass waste for the treatment of Methylene blue dye by adsorption process	2013
14	Production of carbon nanotubes from waste polyethylene plastics via combustion	2013
15	Production of Biodiesel from Non-edible Cassia Fistula	2014
16	Performance evaluation of a pilot scale autoclave cum microwave assisted pretreatment reactor for pretreatment of vegetable wastes for enhanced biomethanation. Phase -I	2014
17	Screening of Ionic liquids for the separation of Diazepam and Diclofenac effluents from Aqueous Phase: A COSMO-RS study with an experimental validation	2014
18	Performance Evaluation of a Pilot scale Autoclave cum Microwave assisted pretreatment reactor for pretreatment of Vegetable wastes for Enhanced Biomethanation. Phase -II	2015
19	Biodiesel Production from Non-edible feedstocks	2015
20	Kinetic Study of Thermal Degradation of Polyether Sulfone	2015

21	Kinetics of Thermal Stability and Degradation of Polymer	2015
22	Removal of Methylene Blue dye using Low cost Adsorbents	2016
23	Adsorption of Lubricant oil using polymeric Waste	2016

(v) B.Tech

Sl. No	Name of the Thesis	Year
1	Manufacture of Acetaldehyde	2008
2	Manufacture of Crude Rice Bran Oil	2009
3	Manufacture of acetaldehyde by the dehydrogenation of ethanol.	2010
4	Manufacture of 50 million pounds of Naphthalene per year	2011
5	Manufacture of Polystyrene	2014
6	Production of Ethylene Glycol	2014
7	Production of Ammonium Nitrate with Nitric acid and Ammonia	2016
8	Ethylene Glycol production by catalytic hydrolysis of ethylene oxide (Process, Design & Economic considerations)	2016

(vi) Other contribution(s)

14. Details of Major R&D Projects

Title of Project	Funding Agency	Duration		Status
		From	To	Ongoing/ Completed
Recovery of High Value Added Globular Proteins From Shrimp Waste Using Aqueous Two Phase System	MHRD	2014	2017	Ongoing

15. Number of PhDs guided: 1

Name of the PhD Scholar	Title of PhD Thesis	Role(Supervisor/ Co-Supervisor)	Year of Award
Mrs. D. Ramya Devi	Modeling and Optimization for Protein Extraction by using Aqueous Two Phase System	Supervisor	2014

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
17th to 18th Sep 2007	Computational Fluid Dynamics (CFD)	National	Participant	TEQIP	NITT
19th to 20th Dec 2007	Design of Experiments for Engineers and Researchers	National	Participant	TEQIP	NITT
28th Jan 2008	Simulating complex predictive system and Bayesian modeling in Image processing– Applications	National	Participant	TEQIP	NITT
24th to 25th Apr 2008	Processes Optimization	National	Participant	TEQIP	NITT
9th Jun 2008	Rural Development: Role of Renewable Energy services	National	Participant	TEQIP	NITT
20th Oct 2008	Advanced Chemical process design	National	Participant	TEQIP	NITT
14th to15th Mar 2012	Environmental Impact Assessment	National	Participant	UGC	NITT
21st -	International conference	International	Paper	VIT,	VIT,

23rd Oct 2009,	on Biotechnological Solutions for Environmental Sustainability		presenter	Vellore	Vellore.
24th Apr 2006	Innovations In Leather Science & Technology	National	Paper presenter	CLRI, Chennai	CLRI, Chennai
11th to12th Dec 2009	National conference on biotechnology, emerging concepts in biotechnology	National	Paper presenter	NIT Calicut	NIT Calicut
27th to 29th Dec 2010	CHEMCON – 2010	National	Paper presenter	Annamalai University	Annamalai University

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

18. Invited Talks delivered

Topic	Date	Inviting Organization
Recovery of bio-molecules from waste using aqueous two-phase system	12.9.2008	Periyar Maniammai University, Vallam, Thanjavur

19. Membership of Learned Societies

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

20. Academic Foreign Visits

Country	Duration of Visit	Programme

21. Publications

(A) Refereed Research Journals:

Author(s)	Title of Paper	Journal	Vol (No.)	Page numbers	Year	Impact Factor of the Journal (Optional)
S.Saravanan, J.A. Reena, J.R. Rao, T. Murugesan, B.U. Nair	Phase Equilibrium Compositions, Densities, and Viscosities of Aqueous Two-Phase Poly(ethylene glycol) + Poly(acrylic acid) System at Various Temperatures,	Journal of Chemical Engineering Data	51	1246 – 1249	2006	
S.Saravanan, J.R. Rao, T. Murugesan, B.U. Nair, T. Ramasami	Recovery of value-added globular proteins from tannery wastewaters using PEG–salt aqueous two-phase systems	Journal of Chemical Technology & Biotechnology	81	814–1819	2006	
S.Saravanan, J.R. Rao, T. Murugesan, B.U. Nair, T. Ramasami	Partition of tannery wastewater proteins in aqueous two-phase poly (ethylene glycol) – magnesium sulfate systems: effects of molecular weights and pH	Chemical Engineering Science	62	969-978	2007	
S.Saravanan, J.R. Rao, B.U. Nair, T. Ramasami	Novel Aqueous Two-Phase Poly (Ethylene Glycol) – Poly (Acrylic Acid) System for Protein Partitioning : Influence of Molecular Weight and Temperature	Process Biochemistry	43	905-911	2008	
S.Nethaji, A.Sivasamy, G.Thennarasu,**S.Saravanan**	Adsorption of Malachite green dye onto activated carbon derived from Borassus aethiopum flower Biomass	Journal of Hazardous Materials	181	271-280	2010	
D.Ramyadevi, A. Subathira, **S.Saravanan**	Aqueous Two-Phase (Polyethylene glycol + Sodium citrate + Water) System: Influence of pH, Molecular weight of PEG on binodal curve at 30^{o}C	International Journal on Applied Bioengineering	5(2)	25-28	2011	

D.Ramyadevi, A. Subathira, **S.Saravanan**	Phase Compositions of Aqueous Two-Phase Systems Formed by Poly (Ethylene Glycol) and Maltodextrin at Different Temperatures	International Journal of Chemical Sciences and Applications	3(2)	289-292	2012	
D.Ramyadevi, A. Subathira, **S.Saravanan**	Protein partitioning in polyethylene glycol – Maltodextrine aqueous two-phase system: statistical modelling of the experimental results	International Journal of Chemical Science and Technology.	2(2)	38-43	2012	
D.Ramyadevi, A. Subathira, **S.Saravanan**	Use of response surface methodology to evaluate the extraction of Protein from Shrimp Waste by Aqueous Two-Phase system (Polyethylene glycol and ammonium citrate)	Journal of Environmental Research and Development.	6(4)	997-1003	2012	
D.Ramyadevi, A. Subathira, **S.Saravanan**	Aqueous Two-Phase Poly (Ethylene Glycol) – Maltodextrin System for Protein Partitioning from shrimp waste: Influence of Molecular Weight and pH.	International Journal of Environmental Sciences	2(4)	2462 - 2469	2012	
D.Ramyadevi, A. Subathira, **S.Saravanan**	Central Composite Design Application for Optimization of Aqueous two phase extraction of protein from shrimp waste	Journal of Chemical and Pharmaceutical Research	4	2087 - 2095	2012	
D.Ramyadevi, A. Subathira, **S.Saravanan**	Liquid-Liquid equilibria of Aqueous Two-Phase Systems Containing Poly (ethylene glycols) of Different Molecular Weight and potassium Citrate	International Journal of Chemical Sciences	10	365-376	2012	
D.Ramyadevi, A. Subathira, **S.Saravanan**	Equilibrium phase behavior of the Poly (ethylene glycol) PEG 4000 and Biodegradable salts at Temperatures of (20°C, 30°C and 40°C)	Journal of Chemical Engineering Data	57	1112 - 1117	2012	
D.Ramyadevi, A. Subathira, **S.Saravanan**	Potential recovery of protein from shrimp waste in aqueous two phase	Research Journal of Chemical	2(7)	47-52	2012	

	system	Sciences				
D.Ramyadevi, A. Subathira, **S.Saravanan**	Protein Recovery From Shrimp Waste Using Aqueous Two Phase System: Effect Of Process Parameters On Partitioning Using Response Surface Methodology	International Journal of ChemTech Research	5(1)	156-166	2013	
L. D. Naidu, **S. Saravanan**, M. Chidambaram, Mukesh Goel, Ashutosh Das, and J. Sarat Chandra Babu	Nano filtration in Transforming Surface Water into Healthy Water: Comparison with Reverse Osmosis	Journal of Chemistry	ID 326869	1-6	2015	
S Settu, P Velmurugan, R R Jonnalagadda and B U Nair	Extraction of Bovine serum albumin using aqueous two phase poly ethylene glycol – poly acrylic acid system	Journal of Scientific and Industrial Research	74	348-353	2015	
L. D. Naidu, **S. Saravanan**, Mukesh Goel,S.Periyasamy and Pieter Stroeve	A Novel technique for De-toxicity of phenol: Nanoparticle assisted Nano filtration	Journal of Environmental Health Science Engineering	14	1-12	2016	
T. Narendiranath Babu, R.V. Mangalaraja, **S. Saravanan**, D. Rama Prabha	Impact damage, hardness and tribology characterization Of epoxy resin based composites reinforced with basalt fibers In combination with TiO**2**, BaSO**4** and SiC	Journal of Chemical Technology and Metallurgy	51(6)	677-685	2016	

(B) Conferences/Workshops/Symposia Proceedings

Author(s)	Title of Abstract/ Paper	Title of the Proceedings	Page numbers	Conference Theme	Venue	Year
S.	'Recovery of Value	Innovations In	-	-	Central	2006

Saravanan, J.R. Rao, T. Murugesan, B.U. Nair	Added Globular Proteins From Tannery Waste Waters Using PEG-Salt Aqueous Two-Phase Systems	Leather Science & Technology			Leather Research Institute, Chennai, INDIA	
S. Saravanan, V.Ravibabu, & L.Sravanthi	Detection of GAD and IA2 auto antibodies in type I diabetic patients and their first degree relatives by ELISA	National conference on biotechnology, emerging concepts in biotechnology	-	-	NIT Calicut	2009
S. Saravanan, A.Subathira, D.Ramya Devi, V.Ravibabu, & L.Sravanthi	Partitioning of globular proteins From Tannery Waste Waters Using ATPS Effect of Molecular Weight, pH & Temperature.	International conference on Biotechnologic al Solutions for Environmental Sustainability			VIT, Vellore.	2009
D.Ramya Devi, **S. Saravanan**, M. Hariprasad	Liquid-Liquid Equilibria of Aqueous Two-Phase Systems Containing Poly(ethylene glycols) of Different Molecular Weight and potassium Citrate	CHEMCON – 2010	-	-	Annamalai University, Chidambar am	2010
D.Ramya Devi, **S. Saravanan**	Partitioning of globular proteins from shrimp waste using aqueous two-phase systems: Effect of molecular weight, pH and Temperatures'	CHEMCON – 2010			Annamalai University, Chidambar am	2010

(C) Books & Monographs

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