Curriculum Vitae

Brief Profile

Dr. T.K. Radhakrishnan is a faculty at the Department of Chemical Engineering, NIT, Tiruchirappalli since 1991. Prior to joining the institute, he was with Indian Institute of Chemical Technology, Hyderabad (a Council of Scientific and Industrial Research Laboratory, Government of India) as Scientist in the Simulation, Optimization and Control Group. His research interests span the fields of process modeling and simulation, model based control, control relevant process identification and process systems engineering.

1. Name   Dr. T.K.Radhakrishnan

2. Designation: Professor

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6. Field(s) of Specialization: Process Systems Engineering, Process Control

7. Employment Profile

Job Title	Employer	From	To
Scientist B	Indian Institute of Chemical Technology Hyderabad	01.02.1988	15.11.1991
Lecturer	Regional Engineering College, Trichy	18.11.1991	02.02.1999
Assistant Professor	National Institute of Technology (Formerly REC), Trichy	03.02.1999	22.04.2007
Professor	National Institute of Technology	23.04.2007	Till Date

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

Examination	Board / University	Year	Division/ Grade	Subjects
Ph.D.	Bharathidasan University	2001		Chemical Engineering
M.Tech.	Indian Institute of Technology, Madras	1987	9.06	Chemical Engineering
B.E.(Chem.)	Annamalai University	1985	First Class	Chemical Engineering
Dip, in Science & Technology	Birla Institute of Science and Technology	1990		S&T
H.S.C.	Tamilnadu State Board	1981	First	
S.S.L.C.	Tamilnadu State Board	1979	First	

9. Academic/Administrative Responsibilities within the University

Position	Faculty/Department/ Centre/Institution	From-To
CPIO and Coordinator, RTI and Legal Cell	Institution	2014 – 2015
Coordinator, TEQIP – II World Bank Project	Institution	2014 – Till date
Dean (Administration) for the Institute	Institution	2008 - 2009
Associate Dean (Administration) for the Institute	Institution	2005 - 2008
Head of the Department	Department	2009 - 2012
Member, Advisory Committee on Faculty Recruitment (ACoFAR)	Institution	2014
Member, Organizing Committee, Conclave for Curriculum Design and Academic Delivery	Institution	13-14 April 2014
Convener, Uniform Curriculum Committee for all PG and UG programs	Institution	2012
Chairman, Board of Studies - I year Undergraduate programs	Institution	2013
Chairman, Under Graduate Admission Committee (Ref. DO/DAP/Admission/2	Institution	2013
Chairman, Centralised Admission Committee (Ref.DO/DAP/Admission/1	Institution	2012
Member, Teaching Learning Centre	Institution	2014
Member, Institute Accreditation Committee	Institution	2014
Member, Committee for NMRs	Institution	2014
Member, Core Committee for Restructuring the non-faculty cadre	Institution	2012
Convener, Grievance Related to MACPS Implementation	Institution	2011
Member - Best Ph.D. Thesis award Committee	Institution	2010

Member, Common PG Admission to NITs	Institution	2010
Member, Committee to frame norms for Best Teacher Award	Institution	2009
Chairman, Annual Report Compilation	Institution	2013, 2014
Member, Revision of format of degree certificate	Institution	2014
Chairman, Printing Committee, 8th Convocation	Institution	2012
Member, Committee for withdrawal of old and obsolete books	Institution	2012
Observer, Group Discussion and Interview, MBA Admissions	Institution	2009
Member, Hospitality Committee, NBA Visit	Institution	2008
Member – Non-teaching promotion Committee	Institution	2006
Member - Implementation of MIS	Institution	2007
Convener, Security Arrangements Committee, Alumni Day	Institution	2008
Deputy Controller of Examinations for the Institute	Institution	16 August 2000 to 14 Dec. 2005
Institute Observer for MS/PhD admissions	Institution	From 2011 onwards
Member – Institute/College Day Committees	Institution	For various years
Member of Time Table Committee	Department	1992-1996
Initiated and coordinated M.Tech. program on Process Control and Instrumentation in part time	Department	1998.
As a member of Board of Studies, involved in design and development of PG program in Process Control & Instrumentation, PG and UG Chemical Engineering curriculum to meet the industry requirements	Department	1996 onwards
DPEC Chairman – PG process Control & Instrumentation – 2nd year	Department	2011-14, 2008-09
NBA Committee Visit- Documentation Committee for the Institute	Institution	From 2014
Member, Events Committee, Alchemy 2008. Member of Student Education Tour Committee – 1994-97	Department	2003
Assisted Head of the Department in planning the various developmental activities of the department such as procuring the new equipment, setting up of new laboratories, conducting performance analysis committee meetings	Department	1991 onwards

10. Academic/Administrative Responsibilities outside the University

Position	Institution	From	To
Member, Board of Studies	Kongu Engineering College, Erode	2015	-
Member,Syllabus Sub Committee for PG	Faculty of Technology, Anna University	2015	-
Member, Syllabus Sub Committee for PG	Instrumentation Engg., Anna University	2015	-
Member, Board of Studies	Pondicherry Engineering College, Puducherry	2015	-
Member, Board of Studies	Coimbatore Institute of Technology, Coimbatore	2015	-
Member, Board of Studies	Dept. of Chemical Engineering, Annamalai University	2015	-

11. Awards, Associateships etc.

Year of Award	Name of the Award	Awarding Organization
2007	Best Teacher Award	National Institute of Technology, Tiruchirappalli

12. Fellowships

Year of Award	Name of the Fellowship	Awarding Organization	From (Month/Year)	To (Month/Year)
1999	Young Scientist Fellowship	Tamil Nadu State Council for Science and Technology	May 1999	July 1999

13. Details of Academic Work

(i) Curriculum Development

- ✓ Initiated and coordinated **M.Tech.** program on **Process Control and Instrumentation** in part time. The course is approved by AICTE in 1998.
- ✓ As a member of Board of Studies, involved in design and development of PG program in Process Control & Instrumentation, PG and UG Chemical Engineering curriculum to meet the industry requirements.
- ✓ Setting up of Advanced Process Control Laboratory

(ii) Courses taught at Postgraduate and Undergraduate levels

- ✓ Advanced Process Control (PG)
- ✓ Process Dynamics (PG)
- ✓ Design and Analysis of Experiments (PG)
- ✓ Process Dynamics and Control (UG)
- ✓ Momentum Transfer (UG)
- ✓ Process Dynamics and Control-II (UG)

✓ Applied Mathematics in Chemical Engineering (UG)
✓ Petroleum refinery Engineering (UG)

(iii)Projects guided at Postgraduate level

Sl. No	Name of the Project	Year
1.	Real time control of three tank hybrid system	2016
2.	Real time control of shell and tube heat exchanger	2016
3.	Modelling and control of crystallization	2016
4.	Control of Temperature in Pre-Calciner of Cement Manufacturing Process using CBA based Least Squares SVM Modelling	2015
5.	Fuzzy Aggregated Multilinear Internal Model Control Based PI Controller Design for Nonlinear Continuous Stirred Tank Reactor	2015
6.	Real Time Modelling and Control of Three Tank Hybrid System	2015
7.	Oxidation of 3-Picoline to Nicotinic Acid	2015
8.	Studies on Triple Chamber Microbial Fuel Cell: Effect of Anolyte Contacting Scheme	2014
9.	Least square support vector machine based model predictive control for a nonlinear coupled continuous stirred tank reactor	2014
10.	Real time multi model control of spherical tank process using explicit model predictive controller	2014
11.	Patient specific estimation of accumulated insulin using linearised multiple HOVORKA model	2014
12.	Adaptive control of a proton exchange membrane fuel cell	2013
13.	Design of distributed model predictive controller for a quadruple tank(Mimo) system	2013
14.	Design of adaptive sliding mode controller for an ideal reactive distillation column	2013
15.	Experimental studies on power production from distillery wastewater using microbial fuel cell	2013
16.	Modelling and Simulation of Polymer Electrolyte Membrane Fuel Cell	2012
17.	Modelling and control of proton exchange membrane fuel cell	2012
18.	GOBF based modelling and model predictive control for an ideal reactive distillation column	2012
19.	GOBF Series Model Based Predictive Control For an Ideal Reactive Distillation Column	2011
20.	Pulverised coal flow measurement in thermal power plant using evolutionary computation technique	2011
21.	MIMO control of quadruple tank process	2011
22.	Design of model based and intelligent controllers for a two tank heating process	2010
23.	Modelling and control of process with large process lag	2010
24.	Laguerre series model based controller for a reactive distillation column	2010
25.	Control system design for ideal reactive distillation column	2009
26.	Control of a MIMO processes using recurrent – fuzzy controller	2009
27.	Identification and control of a multiple input multiple output process	2008
28.	Control of multivariable quadruple tank process	2008
29.	Control system design for ideal reactive distillation column	2008
30.	Model predictive control for a closed loop grinding circuit	2007

31.	Design of soft sensors and control system for reactive distillation	2007
32.	Recurrent neural network based model predictive control of a multivariable process	2006
33.	Model predictive control of a neutralization process	2006
34.	Control system design for a single feed etbe reactive distillation	2005
35.	Model identification and control of a bioreactor using recurrent networks	2005
36.	Non-linear identification and control of a neutralization process	2005
37.	Estimation and control of methyl acetate reactive distillation	2005
38.	Model predictive control of multivariable four-tank system using recurrent neural network	2004
39.	Control of distillation columns using HYSYS	2004
40.	Model Predictive Control of Multivariable Four Tank System using Recurrent Neural Network	2004
41.	Design of a Neural Predictive Controller for pH Neutralisation Process	2004
42.	Studies on control of multivariable four tank system	2003
43.	Adaptive control of conical tanks using neural networks	2003
44.	Multivariable nonlinear control applications for a high purity distillation columns using neural networks	2003
45.	Studies on oil and gas processing	2002
46.	Supervisory control of a conical liquid level system	2002
47.	Simulation of conical storage tank using MATLAB	2002
48.	Identification and control of CSTR	2001
49.	Identification and control of a conical level system	2001
50.	Control of continuous fermentor	2001
51.	Optimization of semiconductor manufacturing process	2001
52.	Optimization of a crude preheat train in a refinery	2000
53.	Self-tuning PID control of continuous fermentors	1998
54.	Control studies on closed circuit grinding	1998
55.	Adaptive control of chemical reactors	1997
56.	Modeling and control of level processes	1996
57.	Distributed control system for a captive power plant	1996
58.	Adaptive control of paper machine head-box	1996
59.	Control of heat exchangers	1995
60.	Self-tuning control of distillation columns	1995
61.	Computer control of liquid level	1994
62.	Application of adaptive control for chemical processes	1993

(iv) Other contribution(s)
- ✓ The Process Control Laboratory was developed with research facilities to cater the PG and research students, viz., Quadruple tank System, Two tank Heating System, Neutralization Process Control, Spherical and Conical Tank System, Multiprocess control station, cascade control system, Smart control trainer and numerical experiments on control system with MATLAB and Simulink.
- ✓ Development of Fluid Machinery Laboratory for catering to the students of Chemical, Production and Instrumentation & Control Engg. with experiments on Francis and Pelton Turbines, Submersible, Reciprocating, Jet, Centrifugal and Screw pumps, Orifice and venture meter, V notch and friction factor studies.

14. Details of Major R&D Projects

Title of Project	Funding Agency	Duration From	To	Status Ongoing/ Completed
Non-linear Control of Chemical Processes	AICTE- R&D	1997	2000	Completed
Modernization of Process Control Laboratory	MHRD-MODROBS	2001	2003	Completed
Identification and Control of Non-linear Chemical Processes using Recurrent Neural Networks	MHRD-R&D	2004	2007	Completed
Modernization of Computer Aided Design Laboratory	MHRD-MODROBS	2004	2006	Completed
Modeling and Control of Processes with Large Process Lag and Random Disturbances	CDAC-R&D	2009	2012	Completed
Developing suitable pedagogical methods for various classes, intellectual calibers and research in e-learning	MHRD-NMEICT	Oct. 2013	Mar. 2017	Ongoing
Instrumentation and Process Control	MHRD-NMEICT	Oct. 2013	Mar. 2017	Ongoing

15. Number of PhDs guided

Name of the PhD Scholar	Title of PhD Thesis	Role(Supervisor/ Co-Supervisor)	Year of Award
N. Sivakumaran	Identification and Control of Nonlinear Chemical Processes using Recurrent Neural Networks	Supervisor	2007
A. Balaji Ganesh	Design of Optical Sensors for Microbiologically Influenced Corrosion (MIC) Studies	Supervisor	2007
S. Jaisankar	Design and development of a modified solar water heating system	Supervisor	2009
G. Balasubramanian	Control System Design for Chemical Processes using Neural Networks	Supervisor	2011
B. Subathra	Modeling and Control of Nonlinear Processes Using Hybrid Intelligent Techniques	Supervisor	2012
V. Kirubakaran	Studies on Explicit Model Predictive Control Applied to Chemical and Biochemical Processes	Supervisor	2015
N. Samsudeen	Studies on Bioelectricity production from Distillery Wastewater using Microbial Fuel Cell	Supervisor	2015
J.ArputhaVijayaSelvi	Online Conductivity Control and Estimation of Controller Parameters of Processes with Transportation Lag	Co-Supervisor	2006
S. Sathiamoorthy	Multiphase Flow Identification Studies using Electrical Capacitance Tomography	Co-Supervisor	2007

K. Valarmathi	Intelligent Techniques for System Identification and Controller Tuning	Co-Supervisor	2010
Kavita	Experimental Studies on OPV Cell: Influence of Multiwall Carbon Nano Tubes on Conversion Efficiency	Co-Supervisor	2015

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
15-26 June 1992	Computer Control of Processes	National	Participant	QIP	IIT, Madras
15-26 June 1992	System Identification and Adaptive Control	National	Participant	QIP	IIT, Madras
13-24 May 1996	Process Control: Theory and Practice	National	Participant	QIP	IIT, Madras
20-25 Jan. 1997	Performance Apprisal and Development System	National	Participant	AICTE-ISTE	REC, Trichy
15-27 Feb. 1999	Fuzzy Logic and Neural Networks in Chemical Process Automation	National	Participant	AICTE-ISTE	KREC, Surathkal
15-27 Nov. 1999	Novel Separation Techniques	National	Participant	AICTE-ISTE	REC, Trichy
20-25 May, 2002	Computer Control of Processes	National	Participant	QIP	IIT, Madras
09-20 June 2003	Safety and Environment Management- Emerging Trends	National	Participant	AICTE-ISTE	REC, Trichy
15-27 Dec. 2003	Modelling, Simulation and Optimization of Chemical Process Industries	National	Participant	AICTE-ISTE	NIT, Warangal
12-16 Jan. 2004	Analytical and Numerical Methods in Modeling and Simulation of Engineering Systems	National	Participant	DST-SERC	IIT, Madras

16-20 Aug. 2004	Process Optimization, Data Driven Modeling and Advanced Process Control	National	Participant	DST-SERC	IIT Bombay
22 Nov.– 03 Dec. 2004,	Emerging Trends in Energy Management and Non-Conventional Energy	National	Participant	AICTE-ISTE	NIT, Trichy
3-7 Jan., 2006	Preparing for Challenges Ahead	National	Participant	ASCI-NIT	NIT, Trichy
10-14 Jan., 2006	Soft Computing Tools, Simulation and Applications	National	Participant	ISI, Kolkata	Indian Statistical Institute, Kolkata
Mar. 16-17, 2007	PEM Fuel Cells – Principles and System Level Integration, at	National	Participant	IITM	IIT Madras, Chennai
Jul. 23-25, 2007	MDP Program on Educational Institutional Excellence	National	Participant	IIM Kolkata	IIM Kolkata
Oct. 2-4, 2008	The Seven Habits of Highly Effective People	National	Participant	Munnar	Franklin Covey
Feb. 28, 2009	Nanomaterials Characterization and their Process Applications	National	Participant	NITT	TEQIP
7th September 2009	Intellectual Property and Innovation Management in Knowledge Era	National	Participant	NITT	NRDC
19-20 Feb. 2010	Current Trends in Industrial Automation	National	Participant	NITT	Institution of Engineers
04-06 Nov. 2011	System Identification	National	Participant	NPTEL, IITM	NPTEL
Feb.3-4, 2012.	Supercritical Technology for Power Sector	National	Participant	Hyderabad	ESCI
Dec. 11-21, 2012	Engineering Thermodynamics	National	Participant	MHRD	IIT Bombay
Feb. 11-12, 2013	Outbound Experimental Learning & Effective Group Dynamics	National	Participant	NIT, Trichy	Adventure Zone

May 13-14, 2013	NBA Workshop on Improved Accreditation Framework	International	Participant	NBA, UKIERI New Delhi	NBA & UKIERI
Mar. 08-10, 2014	2nd World Summit on Accreditation	International	Participant	NBA, New Delhi	NBA
June 02-04, 2014	Training Program on RTI	National	Participant	NIT, Trichy	Inst. of Public Administration, Bangalore at New Delhi
Jan. 08-09, 2015	Workshop on System Identification	National	Participant	TEQIP, NIT, Trichy	Mathworks, Bangalore
Feb. 24-25, 2015	NBA Workshop on Accreditation	National	Participant	NBA New Delhi	NBA
May 21, 2016	NBA Workshop on Outcome Based Education and Accreditation	National	Participant	NBA New Delhi	Anna University, Chennai
Nov. 12, 2016	Orientation Workshop on Outcome Based Education and Accreditation for Programme Evaluators	National	Participant	NBA New Delhi	IIT Madras, Chennai

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
Trends in Industrial Measurement & Automation (TIMA 2007)	National	06-07 Jan 2007	Chairman, Technical Committee	NIT, Trichy
Process Control and Instrumentation: Theory and Laboratory	National	23-28 March 1998	Coordinator	NIT, Trichy
Advanced Fluid Dynamics – High Viscous Fluids	National	Jan. 04-05, 2008	Coordinator	NIT, Trichy
Multivariable Control Systems	National	Feb. 29, 2008	Coordinator	NIT, Trichy
FDP on Chemical Systems Modeling and Simulation	National	Jul. 13-17, 2009	Coordinator	NIT, Trichy
Short term Course on Experimental Design and Optimization Techniques	National	Sept. 10-14, 2012	Coordinator	NIT, Trichy

Advanced Control Engineering (for the Scientists of DRDO)	National	Jan. 21-Mar. 01, 2013	Coordinator	NIT, Trichy
Perspectives on Curriculum	National	May 09-10, 2013	Coordinator	NIT, Trichy
Application of Chemical Engineering Principles in Biotechnology	National	June 28, 2013	Coordinator	NIT, Trichy
Piping Technology	National	March 27-29, 2014	Coordinator	NIT, Trichy
Effective Teaching Learning Process in Technical Education	Local	Sept. 26-27, 2014	Coordinator	NIT, Trichy
Finishing School Training Program for PG students	Local	Oct. 10-17, 2014	Coordinator	NIT, Trichy
Modeling and Simulation of Chemical Processes for PG students	Local	Dec. 03-05, 2014	Coordinator	NIT, Trichy
Real Time Signal Acquisition & Processing using SCILAB	National	Dec. 15-17, 2014	Coordinator	NIT, Trichy

18. Invited Talks delivered

Topic	Programme & Date	Inviting Organization
Cascade Controllers	QIP-STTP on Process Control: Theory and Practice,20.05.1996	IIT, Madras
Advances in Process Control	National Level Seminar on Computer Control of Chemical Processes, 30.11.2001	Annamalai University
Process Modeling for Computer Control	QIP Program on Computer Control of Processes, 25.05.2002	IIT, Madras
Control of Bioreactors	AICTE-STTP on Biotechnology- Emerging Trends and Challenges Ahead, 20.11.2002	Annamalai University
Nonlinear Modeling and Control	AICTE-STTP on System Modeling and Simulation, 21.11.2002	Pondicherry Engineering College
Process Identification and Adaptive Control	STTP on Advanced Process Control, 28.02.2003	Annamalai University
Advances in Process Control	Anna University Faculty Development Program on Process Control and Industrial Instrumentation, 05.07.2003	Kongu Engg. College, Erode
Challenges in Multivariable Systems	AICTE-ISTE STTP on Process Control in Chemical Industries, 18.11.2004	Annamalai University

Identification of Unstable Systems Optimization based Identification of Unstable Systems	Workshop on Control of Unstable Systems, 19.12. 2006	NIT Tiruchi
Mathematical Modeling of Nonlinear Systems	AICTE-STTP on Design & Simulation in Control Systems Engineering,14.06.2007	Pondicherry Engineering College
Control System for a Reactive Distillation Column – Complexities and Design	Workshop on Microreaction Technology for Process Intensification, 11 Jan 2008	NIT Tiruchi
Control Relevant Identification of Non-linear Systems	Workshop on Non-linear Control Systems, 21 Feb. 2008	NIT, Tiruchi
Advances in Nonlinear Control Systems	National Seminar on Control of Nonlinear Systems (Organised by IE and Adhiyman CE), 06-07 Oct. 2009	Adhiyamaan CE
System Identification and Adaptive Control for Chemical Processes	AICTE Sponsored Staff Development Program on Recent Advances in Intelligent Measurements and Control, 23 April 2010	JJ College of Engg. &Tech
Soft Sensing and Control System Design for Reactive Distillation System	International Conference on Modeling, Optimization and Computing, 28-30 October 2010	NIT Durgapur
Advances in MIMO System Control	Seminar Series of Electronics and Instrumentation Engineering, 05 March 2011	Jayaram CET
Soft Sensor Based Composition Estimation and Control System Design	International Conference on Recent Advances of Chemical Engineering & Technology - 2011, 10-12 March 2011	IIChECochin
Inferential Sensing of State variables	AICTE Seminar on Application of Intelligent Techniques in the Analysis and Design of Electrical Systems, 30 April 2011	KSRCE
State Estimation and Control System for Ideal Reactive Distillation Column	AICTE Workshop Process Modeling and Control, 28 Aug. 2011	SVCE
Applications of Estimation and Filtering in Reactive Distillation Systems	Automatic Control and Dynamic Optimization Society Workshop on Applications of Estimation and Filtering, Nov. 11 2011	NITT
Input-Output Modeling and Control of a Bioreactor	CSIR-National Seminar on Application of Modeling and Simulation Techniques in Food and Bioprocess Engg., Dec. 08 2011	Kongu Engg. College

Application of Soft Sensors in Control of a Process Intensification System	ICES – 2012, Sept.15 2012	SASTRA
Model Analysis of Bioreactors	CSIR sponsored workshop on Process Modeling and Simulation, Nov. 21-22, 2012	PRIST
Frequency Response Analysis for Chemical Process Systems	FDP on Process Instrumentation, Dynamics and Control, Dec. 03, 2012	Anna University
GOBF Modeling and Control	International Conference on Instrumentation, Control, Communication and Automation (ICICCA – 2013)	Kalasalingam Univ. Jan 3-5, 2013
Topics on Advanced Control Engineering	Certificate Course on Advanced Control Engineering for DRDL Scientists, Jan. 21-22, 2013 & Feb. 28-Mar.01, 2013	DRDL, Hyderabad
Lecture on Outcome based Education	Training Faculty for NBA Accreditation, 30 Dec. 2013.	Anna University
Linear System Modeling and Control	Research Issues and Emerging Trends inControl Systems Engineering, Feb. 14-15, 2014	Thiyagarajar College of Engineering
Model Predictive Control Adaptive Control	Trends in Process Control, July 3-4, 2014	NIT, Warangal
Advanced Topics in Process Identification and Control	Advances in Process Control, Nov. 13-14, 2014	CIT Kokrajhar

19. Membership of Learned Societies

Type of Membership (Ordinary Member/ Honorary Member / Life Member)	Organization	Membership No. with date
Life Member	Indian Society for Technical Education	LM 12404, 1992
Life Member	Indian Institution of Chemical Engineers	LM 26929,2003
Fellow	Institution of Engineers, India	F 1141165, 2009
Life Member	National Society of Fluid Mechanics & Fluid Power	LM 520, 2011

20. Academic Foreign Visits

Country	Duration of Visit	Programme
Taiwan, ROC	30 days	Collaborative Work with NTU, Taipei
Malaysia	3 days	Ph.D. Thesis Evaluation
Singapore	4 days	Paper presentation
Thailand	4 days	Paper presentation
Dubai, UAE	4 days	Paper presentation
Muscat, Oman	3 days	For Accreditation of Caledonian College of Engineering, Oman

21. Publications

(A) Refereed Research Journals: (in SCI Journals)

Author(s)	Title of Paper	Journal	Volume (No.)	Page nos	Year
N. Samsudeen T.K.Radhakrishnan M. Matheswaran	Effect of isolated bacterial strains from the distillery wastewater on power production generation in microbial fuel cell	Process Biochemistry	Acceptd		
S. Karthika, T.K.Radhakrishnan P. Kalaichelvi	A Review of Classical and Nonclassical Nucleation Theories	Crystal Growth & Design	Acceptd		
Chinmay Sahu, V. Kirubakaran, T. K. Radhakrishnan, N. Sivakumaran	Explicit model predictive control of split type air conditioning system	Transactions of the Institute of Measurement and Control	Acceptd		
N. Samsudeen, Amit Sharma, T.K. Radhakrishnan, M. Matheswaran,	Performance investigation of multi-chamber microbial fuel cell: An alternative approach for scale up system	J. Renewable & Sustainable Energy (AIP)	Acceptd		
V. Kirubakaran, ChinmaySahu, T.K. Radhakrishnan, N. Sivakumaran	Energy efficient model based algorithm for control of building HVAC systems	Ecotoxicology and Environmental Safety (Elsevier)	121	236–243	2015
LaluSeban, V. Kirubakaran, B.K. Roy, T.K. Radhakrishnan	GOBF-ARMA based model predictive control for an ideal reactive distillation column	Ecotoxicology and Environmental Safety (Elsevier)	121	110–115	2015
N. Samsudeen, T.K. Radhakrishnan, M. Matheswaran	Performance comparison of triple and dual chamber microbial fuel cell using distillery wastewater as a substrate	Environmental Progress & Sustainable Energy (Wiley)	34(2)	589-594	2015

V. Kirubakaran, T.K. Radhakrishnan, N. Sivakumaran	Metaheuristic Patient Estimation Based Patient-Specific Fuzzy Aggregated Artificial Pancreas Design	I&EC Res. (ACS)	53(39)	15052–15070	2014
G. Petchinathan, K. Valarmathi, D. Devaraj, T. K. Radhakrishnan	Local Linear Model Tree and Neuro-Fuzzy System for Modelling and Control of an Experimental pH Neutralization Process	Brazilian Journal of Chemical Engineering	30(2)	483-495	2014
V. Kirubakaran, T.K. Radhakrishnan, N. Sivakumaran	Distributed Multiparametric Model Predictive Control Design for a Quadruple Tank Process	Measurement (Elsevier)	47(1)	841–854,	2014
K. AsanMohideen, G. Saravanakumar, K. Valarmathi, D. Devaraj, T.K.Radhakrishnan	Real-coded Genetic Algorithm for system identification and tuning of a modified Model Reference Adaptive Controller for a hybrid tank system	Applied Mathematical Modeling (Elsevier)	37(6)	3829-3847	2013
B. Subathra, T. K. Radhakrishnan	Recurrent Neuro Fuzzy and Fuzzy Neural Hybrid Networks: A Review'	Instrumentation Science & Technology (Taylor & Francis)	40 (1)	29-50	2012
S. Jaisankar, T.K. Radhakrishnan, K.N. Sheeba	Experimental Studies on Heat Transfer and Thermal PerformanceCharacteristics of Thermosyphon Solar Water Heating System with Helical and Left–Right Twisted Tapes	Energy Conversion and Management (Elsevier)	52(5)	2048-2055	2011
Rajni Jain, N. Sivakumaran, T.K. Radhakrishnan	Design of Self Tuning Fuzzy Controllers for Nonlinear Systems	Expert Systems with Applications (Elsevier)	38 (4)	4466–4476	2011
B. Subathra, T. K. Radhakrishnan	Modeling and Predictive Control using Hybrid Intelligent Techniques for a Nonlinear Multivariable Process	Instrumentation Science & Technology (Taylor & Francis)	39(2)	211-230	2011
S.R.VijayaRaghavan, T.K.Radhakrishnan, K.Srinivasan	Soft Sensor Based Composition Estimation and Controller Design for an Ideal Reactive Distillation Column	ISATransactions (Elsevier)	50 (1)	61–70	2011
B. Subathra, N. Raja Rao	Design of a TRFN Controller for a Nonlinear	Instrumentation Science &	37	660–	2009

T. K. Radhakrishnan,	Multivariable Process	Technology (Taylor & Francis)		675	
G. Balasubramanian, K. Hariprasad, N. Sivakumaran T.K.Radhakrishnan	Adaptive Control of Multivariable Process Using Recurrent Neural Networks'	Instrumentation Science & Technology (Taylor & Francis)	37	615–630	2009
A. Balaji Ganesh. T.K.Radhakrishnan	Fiber-optic Sensor for the Estimation of Microbial Corrosion of Metals	Optik(Elsevier)	120	479-483	2009
S. Jaisankar, T.K. Radhakrishnan K.N. Sheeba	Experimental studies on heat transfer and friction factor characteristics of forced circulationsolar water heater system with helical twisted tapes	Solar Energy (Elsevier)	83	1943–1952	2009
S. Jaisankar, T.K. Radhakrishnan K.N. Sheeba	Studies on heat transfer and friction factor characteristics of Thermosyphon solar water heater system with helical twisted tapes	Energy (Elsevier)	34	1054-1064	2009
S. Jaisankar, T.K. Radhakrishnan, K.N. Sheeba, S. Suresh	Experimental investigation of heat transfer and friction factor characteristics of thermosyphon solar water heater system fitted with spacer at the trailing edge of Left–Right twisted tapes	Energy Conversion and Management (Elsevier)	50	2638–2649	2009
K. Valarmathi, D.Devaraj, T.K.Radhakrishnan	Real-coded Genetic Algorithm for System Identification and Controller Tuning	Applied Mathematical Modelling (Elsevier)	33	3392–3401	2009
G. Balasubramanian, K. Hariprasad, N. Sivakumaran T.K.Radhakrishnan	Adaptive Control of Neutralization Process using Recurrent Neural Networks	Instrumentation Science & Technology (Taylor & Francis)	37(4)	383-396	2009
G.Gobi, D.Sastikumar, A.Balaji Ganesh, T.K.Radhakrishnan	Fiber-optic Sensor to Estimate Surface Roughness of Corroded Metals	Optica Applicata	39(1)	5-11	2009
S. Jaisankar, T.K.Radhakrishnan K.N. Sheeba	Experimental Studies on Heat Transfer and Friction Factor Characteristics of Thermosyphon Solar Water Heater System	Applied Thermal Engg. (Elsevier)	29	1224-1231	2009

	Fitted with Spacer at the Trailing Edge of Twisted Tapes				
K. Valarmathi, D.Devaraj, T.K.Radhakrishnan	Intelligent Techniques for System Identification and Controller Tuning in pH Process	Brazilian Journal of Chemical Engineering	26(1)	99-111	2009
S.M. GirirajKumar, R. Sivasankar, T.K.Radhakrishnan, V. Dharmalingam N.Anantharaman	Particle Swarm Optimization Technique Based Design of Pi Controller for a Real-Time Non-Linear Process	Instrumentation Science & Technology (Taylor & Francis)	36(5)	525-542	2008
N.Bharathi, J.Shanmugam, T.R.Rangaswamy, T.K. Radhakrishnan M. Chidambaram	Real Time Control of pH in Fed-Batch Process	Instrumentation Science & Technology (Taylor & Francis)	36(2)	161-179	2008
G. Balasubramanian, K. Hariprasad, N. Sivakumaran T.K.Radhakrishnan	Adaptive Control of Neutralization Process using Neural Networks	Instrumentation Science & Technology (Taylor & Francis)	36(2)	146-160	2008
A. Balaji Ganesh T.K.Radhakrishnan	Fiber-optic Sensors for the Estimation of Oxygen Gradients within Biofilms on Metals	Optics and Lasers in Engineering (Elsevier)	46	321-327	2008
A.Balaji Ganesh T.K.Radhakrishnan	Surface Texture Measurement to Estimate Corrosion of Mild Steels using a Laser Optic Sensor System'	Lasers in Eng.	17	371-376	2007
G.Gobi, A.Balaji Ganesh, T.K.Radhakrishnan, D.Sastikumar	Laser Based Optical Sensor to Observe Metal Surfaces Subjected to Early Microbic Corrosion	Lasers in Eng	17	397-404	2007
K. Valarmathi, D.Devaraj, T.K.Radhakrishnan	Adaptive Enhanced Genetic Algorithm-Based Proportional Integral Controller Tuning for pH Process	Instrumentation Science & Technology (Taylor & Francis)	35(6)	619-635	2007
S. Soundaravalli, T.K.Radhakrishnan, S. Sundaram	Model Based Tuning of Humidifying Processes with Transportation Lag	Instrumentation Science & Technology (Taylor & Francis)	35(2)	153-162	2007
A. Balaji Ganesh T.K.Radhakrishnan	Fiber Optic Sensors for the Estimation of pH within Natural Biofilms on Metals	Sensors and Actuators B(Elsevier)	123	1107-1112	2007
J.ArputhaVijayaSelvi T.K.Radhakrishnan	Performance assessment of PID and IMC tuning	ISA Transactions (Elsevier)	46(3)	391–	2007

Author(s)	Title	Journal	Vol	Page	Year
S.Sundaram	methods for a mixing process with time delay			397	
A. Balaji Ganesh. T.K.Radhakrishnan	Fiber optic pH sensor	Fiber and Integrated Optics (Taylor & Francis)	25(6)	403-410	2006
S. Nagammai, N. Sivakumaran T.K.Radhakrishnan	Control System Design for a Neutralization Process using Block Oriented Models	Instrumentation Science & Technology (Taylor & Francis)	34(6)	653-668	2006
N. Sivakumaran, T.K.Radhakrishnan, J. Sarat Chandra	Identification and Control of Bioreactor using Recurrent Networks	Instrumentation Science & Technology (Taylor & Francis)	34(6)	635-652	2006
S. Athimathi T.K. Radhakrishnan	Control System Design for a Single Feed ETBE Reactive Distillation Column	Chem.Eng.Technol. (Wiley-VCH)	29(10)	1137-1154	2006
J.ArputhaVijayaSelvi T.K.Radhakrishnan, S.Sundaram	Model Based IMC Controller for Processes with Dead Time	Instrumentation Science & Technology (Taylor & Francis)	34	463–474	2006
R. Viknesh, N. Sivakumaran, J. Sarat Chandra T.K.Radhakrishnan	A Critical Study of Decentralised Controllers for a Multivariable System	Chem.Eng.Technol. (Wiley-VCH)	27(8)	880-889	2004
T.K.Radhakrishnan, S.Sundaram M.Chidambaram	Nonlinear Control of Continuous Bioreactors	Bioprocess Biosyst. Eng.,	20(2)	173-178	1999
T.K. Radhakrishnan, K.Gangiah, K.Yamuna Rani	Multirate Multivariable Self-Tuning Control of Distillation Columns using Kalman Predictor	Chemical Eng. Communications	127	55-75	1994
T.K.Radhakrishnan K.Gangiah	A Critical Study of Self-Tuning Algorithms for Distillation Control	Chemical Engineering and Technology	14	399-404	1991

List of papers published in non-SCI journals

Author(s)	Title of Paper	Journal	Volume (No.)	Page nos	Year
B. Subathra, S. Sesahadri T.K.Radhakrishnan	A comparative study of neuro fuzzy and recurrent neuro fuzzy model-based controllers for real-time industrial processes	Systems Science & Control Engineering (Taylor & Francis)	3	412–426	2015

V. Kirubakaran, T.K.Radhakrishnan N. Sivakumaran	Multi-Parametric Model Predictive Control Based Regulation of Blood Glucose in Type 1 Diabetics under Unmeasured Meal Disturbances: A Simulation Study	Int. J. Biomedical Engineering and Technology	14(2)	105-118	2014
K. Jeyannathan A. SeshagiriRao T.K.Radhakrishnan	Effect of Variation of K_LA in Aeration Tanks	Int. J. Env. Res. Dev.	4(2)	115-122	2014
Rajni Jain T. Vinopraba T.K.Radhakrishnan N. Sivakumaran	Design of Hybrid Fuzzy-PI Controllers for MIMO Processes	Control & Intelligent Systems (Acta Press)	40(4)		2012
T.Vinopraba, N.Sivakumaran, S. Narayanan, T.K.Radhakrishnan	Design of Internal Model Control Based Fractional Order PID Controller	J Control Theory Appl.,(Springer-Verlag)	10 (3)	297–302	2012
K. Valarmathi, J. Kanmani, D. Devaraj, T.K.Radhakrishnan	Swarm intelligence based system identification and controller tuning	International Journal of Computer Aided Engineering and Technology	3(5/6)	443 - 457	2011
T.Vinopraba, N.Sivakumaran, T.K.Radhakrishnan S.Raghavan	Modelling and Control of Blood Glucose Regulation in Type I Diabetic Mellitus	Modelling, Measurement and Control A	83(1-2)	17-32	2010
B. Subathra T. K. Radhakrishnan	Modeling and Control of Multivariable Process Using Intelligent Techniques	Sensors & Transducers J. (IFSA)	121(10)	68-76	2010
K. Valarmathi, D.Devaraj, T.K.Radhakrishnan	Cascaded Genetic Algorithm for System Identification and Controller Tuning	J. Information, Intelligence and Knowledge	2(2)	91-108	2010
S. Nithya, N.Sivakumaran, T.K.Radhakrishnan N.Anantharaman	Control of Nonlinear Process using Soft Computing	The ICFAI J of Electrical & Electronics Engg.	3(1)	66-79	2010
S.R.V. Raghavan T.K.Radhakrishnan	Parallel cascade Control System Design for Ideal Reactive Distillation Column	IE(I) Journal-CH	90(2)	22-27	2010
S.M. GirirajKumar, R. Sivasankar, T.K.Radhakrishnan V. Dharmalingam N.Anantharaman	Genetic Algorithms for Level Control in a Real Time Process	Sensors & Transducers J. (IFSA)	97(10)	22-33	2008
S. Jaisankar, T.K.Radhakrishnan	Experimental Studies on Heat Transfer and	Int. Energy J	9	199-206	2008

K.N. Sheeba	Friction Factor Characteristics of Forced Circulation Solar Water Heater System Fitted with Left-Right Twisted Tapes				
N. Sivakumaran T.K.Radhakrishnan	Modeling and Predictive Control of a Multivariable Process using Recurrent Neural Networks	Int. J. Modeling and Simulation (ACTA Press)	28(1)	20-26	2008
G.Balasubramanian N. Sivakumaran T.K.Radhakrishnan	Control of Neutralization Process using Soft Computing	Sensors & Transducers (IFSA)	89(3)	30-38	2008
S. Nithya, A.S.Gour, N.Sivakumaran, T.K.Radhakrishnan T. Balasubramanian N.Anantharaman	Design of Intelligent Controller for Nonlinear Processes	Asian J Applied Sciences	1(1)	33-45	2008
S. Jaisankar T.K.RadhakrishnanK. N. Sheeba, S. Suresh	Experimental Studies on Heat Transfer and Friction Factor Characteristics of Thermosyphon Solar Water Heater System Fitted with Left-Right Twisted Tapes	Int. J. Applied Eng. Res.	3(8)	1091-1103	2008
N. Sivakumaran T.K.Radhakrishnan	Predictive Controller Design for Non-linear Chemical Processes	Indian J. Chem. Technol	14	341-349	2007
S.Nithya, A.S.Gour, N.Sivakumaran, T.K.Radhakrishnan N.Anantharaman	Model Based Controller Design for Shell and Tube Heat Exchanger	Sensors & Transducers (IFSA)	84(10)	1677-1686	2007
G.Gobi A.Balaji Ganesh T.K.Radhakrishnan D.Sastikumar	An Optical Approach to Estimate the Surface Roughness of Metals	J. American Science	3(3)	49-53	2007
S. Sathiyamoorthy, J. Saratchandra T.K.Radhakrishnan	Modeling of Potential Distribution of Electrical Capacitance Tomography Sensor for Multiphase Flow Image	Sensors & Transducers (IFSA)	83(9)	1527-1534	2007
P. Madhavasarma, T.K.Radhakrishnan S.Sundaram	Model Based Evaluation of a Controller with Pole Placement Technique for Conductivity Process	Journal of Instrument Society of India	36(4)	246-252	2006
Balaji Ganesh A. T.K.Radhakrishnan	Estimation of Corrosion of Metals using Fiber Optic Displacement Sensor System	Sensors & Transducers (IFSA)	70(8)	645-654	2006
A.Balaji Ganesh T.K.Radhakrishnan	Estimation of Microbiologically	Nature and Science	4(3),	01-04	2006

	Influenced Corrosion of Aluminium Alloy in natural Aqueous Environment				
T.K.Radhakrishnan K. Ramakrishna	Level Control in an Industrial Gas Chiller	IE(I) Journal – CH	86	60-63	2006
J.ArputhaVijayaSelvi T.K.Radhakrishnan S.Sundaram	Model Based Controller Design for Processes with Transportation Lag	Journal of Instrument Society of India	36(1)	66-72	2006
J.ArputhaVijayaSelvi T.K.Radhakrishnan S.Sundaram	Controller Selection for Flow Process with Dead Time	Sensors & Transducers (IFSA)	62(12)	473-482	2005
A.Balaji Ganesh T.K.Radhakrishnan	Employment of Fluorescence Quenching for the Determination of Oxygen and Glucose	Sensors & Transducers(IFSA)	60(10)	439-445	2005
M. Boopathy, N. Sivakumaran, J. Sarat Chandra T.K.Radhakrishnan	Identification and Control of Four Tank System Using Neural Network Plant Inverse Controller	Journal of Instrument Society of India	35(2)	179-185	2005
T.K. Madhubala T.K.RadhakrishnanS. Arumugam	Development and Tuning of Fuzzy Controller for Nonlinear Process	Indian Chemical Engineer Section A	47(1)	13-17	2005
V.Selvasaravaneswaran T.K.Radhakrishnan	Control of Liquid Level in a Conical Tank System using Relay Feedback Approach	Journal of Current Sciences	5 (1)	55-61	2004
T.K. Madhubala T.K.Radhakrishnan	Genetic Algorithm Tuned Fuzzy Neural Network for Nonlinear System Control	Int. J. Engineering Simulation (U.K.)	5 (1)	25-31	2004
M. Vijayalaxmi T.K.Radhakrishnan	Supervisory Control of a Conical Liquid Level System	Int. J. Engineering Simulation (U.K.)	3	3-11	2002
V. Abarna T.K.Radhakrishnan S.Sundaram	Modeling and Optimisation of D-fructose Isomersisation using Fluorosensor	Biomed. Sci. Instrum.	36	227-231	2000
T.K.Radhakrishnan	Nonlinear Self-Tuning Control of Chemical Reactors with Input and Process Constraints	Journal of Process Control and Quality	9	39-49	1997
R.C.Panda, K.Yamuna Rani, T.K.Radhakrishnan V.S.Ramachandra Rao	Modeling of a Fludized Bed Drier for Digital Control Applications	Indian Journal of Technology	29(2)	71	1991

(B) Conferences/Workshops/Symposia Proceedings

International Conferences

Author(s)	Title of Abstract/ Paper	Title of the Proceedings	Page nos.	Conf. Theme	Venue	Year
V.R. Divyesh, H. KirenVedi, V. Kirubakaran, T.K. Radhakrishnan	Adaptive explicit model predictive controller for coupled continuous stirred tank reactor using least squares support vector machines	Indian Control Conference		Control	Indian Institute of Technology Madras, Chennai, India	2015
Chinmay Sahu, V.Kirubakaran, T.K. Radhakrishnan, N. Sivakumaran	Closed loop building data based estimation and energy efficient model predictive control of Heating Ventilation and air conditioning system	International conference on Green Technology for Environmental Pollution Prevention and Control		Green Tech.	NIT Tiruchirappalli	2014
Lalu Seban, V.Kirubakaran, T.K. Radhakrishnan	GOBF-ARMA based model predictive control for an ideal reactive distillation column	International conference on Green Technology for Environmental Pollution Prevention and Control		Green Tech.	NIT Tiruchirappalli	2014
V.Kirubakaran. T.K.Radkakrishnan, N.Sivakumaran	Insulin on Board Based Aversion of Hypoglycemia in Type I Diabetics Using Multi Parametric Model Predictive Control	Int. Conf. on Advances in Chemical Engineering and Technology	150-153	Advances in Chemical Engg.	Kollam, India	2014
V.Kirubakaran, T.K.Radkakrishnan, N.Sivakumaran	Blood glucose concentration regulation in Type 1 diabetics using multi model multi parametric model predictive control: An empirical approach	12th IFAC Symposium on Computer Applications in Biotechnology		Biotechnology	IIT, Bombay	2013
T.Vinopraba, N.Sivakumaran, S.Narayanan,	Design of fractional order controller for	12th IFAC Symposium on Computer		Biotechnology	IIT, Bombay	2013

T.K.Radhakrishnan	Biochemical reactor	Applications in Biotechnology				
N. Samsudeen, M. Matheswaran, T.K. Radhakrishnan	Electricity Production from Distillery Waste Water using Triple Chambered Microbial Fuel Cell	International Conference on Water Desalination, treatment and Management		Water Desalination, treatment and Management	MNIT, Jaipur	2013
N. Samsudeen, T.K. Radhakrishnan, M. Matheswaran, M.A.M.Verma	Electricity Production from Distillery Effluent using Dual Chamber Microbial Fuel Cell:Effect of Membrane	Second International Conference on Advanced Oxidation Processes		Advanced Oxidation Processes	M.G.University, Kottayam	2012
Keerthana, M , T.K. Radhakrishnan, N. Sivakumaran	A GOBF Model Based Control System for Ideal Reactive Distillation Column	2ⁿᵈ Annual International Conference on Control, Automation and Robotics		Control, Automation and Robotics	Bangkok Thailand	2012
K. Srinivasan, T.K.Radhakrishnan S.Devi,	Recurrent Neural Netwok based Internal Model Controller Design for pH Neutralization Process'	2ⁿᵈ Annual International Conference on Control, Automation and Robotics		Control, Automation and Robotics	Bangkok Thailand	2012
A.T.Nair, T.K.Radhakrishnan, K. Srinivasan, S.RominusValsalam	Kalman Filter Based State Estimation of a Thermal Power Plant	International Conference on Process Automation, Control and Computing	1-5	Process Automation, Control and Computing	Coimbatore.	2011
S.K. MarrtinLuthur, B. Raja Singh, S.RominusValsalam S. Narayanan T.K. Radhakrishnan	Intelligent Parameter and State estimation for Coal mill in a Thermal Power Plant	Proc. of International Conference - SYMOPA	17-22	Control	Thiruvananthapuram	2010
K. Sankar, T.K.Radhakrishnan, S.RominusValsalam	Modelling Simulation and control of Multivariable System-Boiler Power generation Plant	Proc. of International Conference - SYMOPA	49-54	Control	Thiruvananthapuram	2010
K. Srinivasan T.K.Radhakrishnan	Development of Neural Network	Proc. of International	81-84	Control	Thiruvananthapur	2010

	Based Soft Sensor Design for Application to Three Tank Interacting Nonlinear MIMO Process	Conference - SYMOPA				am	
S. Nithya, N.Sivakumaran, T.K.Radhakrishnan, N.Anantharaman	Soft Computing Based Controllers Implementation for Nonlinear Process in Real Time	Proc. of the World Congress on Engg. and Comp. Sci.			Engg. and Comp. Sci.	San Francisco, USA	2010
B. Subathra T.K. Radhakrishnan	Recurrent Neuro Fuzzy Hybrid Learning Approach for System Modeling and Control	Proceedings of the5th International Symposium on Design, Operation and Control of Chemical Processes,	1425 - 1433		Design, Operation and Control of Chemical Processes	Singapore	2010
Rajni Jain, T.Vinopraba, N.Sivakumaran T.K.Radhakrishnan	Design and implementation of controllers for MIMO process	International Conference on Advances in Recent Technologies in Communication and Computing	750-752		Communication and Computing	The Windsor Castle, Kottayam	2009
T.Vinopraba, N.Sivakumaran, T.K.Radhakrishnan S.Raghavan	Optimal Control of Blood Glucose Regulation in Type I Diabetics	Proceedings of *TIMA*	84-92		Control	Anna University Chennai	2009
B.Subathra, T.K.Radhakrishnan	RNFN Model based Predictive Controller for a Multivariable Process	Proceedings of *TIMA*	152-157		Control	Anna University Chennai	2009
S.R.VijayaRaghavan Vineesh Ravi, T.K.Radhakrishnan	Linear State Estimator Based Control System for Ideal Reactive Distillation Column	Proceedings of *TIMA*	215-220		Control	Anna University Chennai	2009
K. Valarmathi, D.Devaraj, T.K. Radhakrishnan,	A combined genetic algorithm and Sugeno fuzzy logic based approach for on-line tuning in pH process	4th International IEEE Conference Intelligent Systems	20-27		Intelligent Systems	Varna, Bulgaria	2008
S. Nithya, A.S.Gour, N. Sivakumaran,	Intelligent controller implementation in	IEEE International Symposium on Industrial	2508 - 2513		Industrial Electronics	Cambridge	2008

T.K.Radhakrishnan, T. Balasubramanian, N. Anantharaman	real time for a nonlinear process	Electronics				
S. Jaisankar, T.K. Radhakrishnan, K.N. Sheeba S. Suresh	Heat Transfer Enhancement to Thermosyphon Solar Water Heater System with Twisted Tapes by CFD Approach	2nd International Conference on Resource Utilization and Intelligent Systems		Intelligent Systems	KonguEngg. College, Perundurai	2008
K. Valarmathi, J. Kanmani, D.Devaraj, T.K.Radhakrishnan	Hybrid GA Fuzzy Controller for pH Process	International Conference on Computational Intelligence and Multimedia Applications	13-18	Computational Intelligence and Multimedia Applications	Sivakasi	2007
S. Jaisankar, T.K. Radhakrishnan, K.N. Sheeba S. Suresh	Experimental Studies on Heat Transfer and Friction Factor Characteristics of Thermosyphon Solar Water Heater with Kenics Twisted Tapes	International Conference on Advances in Energy Research		Advances in Energy Research	IIT Mumbai	2007
S. Nithya, A.S.Gour, N. Sivakumaran, T.K.Radhakrishnan, N. Anantharaman	Predictive controller design for a shell and tube heat exchanger,	International Conference on Intelligent and Advanced Systems		Intelligent and Advanced Systems	Malaysia	2007
D.Kesavan, N.Sivakumaran, T.K.Radhakrishnan G.Balasubramanian	Fuzzy Controller Design for Nonlinear Neutralization Process	Global Conference 'flotek.g' on 'Towards Intelligent Flow Measurement and Control System		Control System	FCRI, Palakkad	2007
D. Kesavan, N. Sivakumaran, T.K.Radhakrishnan G. Balasubramanian	Control of Neutralization Process using Adaptive Interaction Technique	nternational Conference on Modeling and Simulation		Modeling and Simulation		2007
K. Valarmathi, B. Subathra, D. Devaraj, T.K. Radhakrishnan	Adaptive Neuro Fuzzy Approach for System Identification and Control of pH Process	Modeling and Simulation		Modeling and Simulation		2007

K. Valarmathi, J. Kanmani, D.Devaraj, T.K.Radhakrishnan	Real Time Intelligent System Identification and Control for pH Processes	Proceedings of the Trends in Industrial Measurements and Automation		Measurements and Automation		2007
N.Sivakumaran, V.Kirubakaran, T.K. Radhakrishnan	Neural Model Predictive Controller for Multivariable Process	Proceedings of the IEEE International Conference on Industrial Technology		Industrial Technology	Mumbai	2006
N.Sivakumaran, S.Nagammai, P.Karthikeyan T.K. Radhakrishnan	Control of Neutralization Process Using Neural Networks	Proceedings of the International Conference on Modeling and Simulation	852-858	Modeling and Simulation	Kuala Lumpur, Malaysia	2006
N.Sivakumaran, V.Kirubakaran, T.K. Radhakrishnan	Modeling and Robust Controller Design for Multivariable Process	Proceedings of the International Conference on Modeling and Simulation	863-868	Modeling and Simulation	Kuala Lumpur, Malaysia	2006
J.Arputhavijayaselvi E.Narayanamoorthy T.K.Radhakrishnan S.Sundaram	Model Based Fuzzy Tuned PID Controller for Processes with Dead Time	Proceedings of the International Conference on Modeling and Simulation	879-884	Modeling and Simulation	Kuala Lumpur, Malaysia	2006
A. Balaji Ganesh J. Arputhavijayaselvi T.K. Radhakrishnan	Model Based Corrosion Mitigation Through Differential Conductivity	Proceedings of the International Conference on Modeling and Simulation	376-378	Modeling and Simulation	Kuala Lumpur, Malaysia	2006
A. Balaji Ganesh T.K.Radhakrishnan	Optical Intensity Based Biofilm Thickness Measurement using an In-Situ Optic Sensor	Proceedings of the International Conference on Recent Advances in Marine Antifouling Technology	306-313	Marine Antifouling Technology	Chennai	2006
K.Valarmathi D.Devaraj T.K.Radhakrishnan	Particle Swarm Optimization based PI controller tuning for Fermentation Process	Proceedings of the IEEE Conference on Computational Intelligence for Modelling, Control and Automation, and International Conference on Intelligent Agents, Web Technologies and Internet Commerce	1043-1048	Control and Automation		2005

N. Sivakumaran B.H. Deepak Kumar J. Sarat Chandra T.K.Radhakrishnan	Model Based Predictive Control using Recurrent Neural Network for Bioreactor Control	Proceedings of the Trends in Industrial Measurements and Automation		Measurements and Automation	Chennai	2004
T.K. Madhubala M.Boopathy J. Sarat Chandra T.K.Radhakrishnan	Development and Tuning of Fuzzy Controller for a Conical Level System	Proc. of the International Conference on Intelligent Sensing and Information Processing	450-455	Intelligent Sensing and Information Processing	Chennai	2004
V. Dharmalingam T.K. Radhakrishnan S. Sundaram	RTD Studies in Coiled Pipes with Time Delay	2nd International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics		Heat Transfer, Fluid Mechanics and Thermodynamics	Zambia	2003
M. Vijayalaxmi T.K. Radhakrishnan	Supervisory Fuzzy Control of a Conical Level System	International Conference on Digital Aided Modeling and Simulation		Modeling and Simulation	Coimbatore	2003
T.K. Madhubala, S. Venkatesan, S. Sundaram T.K.Radhakrishnan	Control of a Conical Liquid Level System	System'Proceedings of the Trends in Industrial Measurements and Automation		Measurements and Automation	Chennai	2001
T.K.Radhakrishnan	Non-linear Control of a Liquid Level System	Proceedings of the Trends in Industrial Measurements and Automation		Measurements and Automation	Chennai	1999
T.K.Radhakrishnan	Nonlinear Control of Continuous Fermentors	Presented at Intl. Conference on Advances in Chemical Engineering		Chemical Engineering	IIT Madras	1996

National Conferences

Author(s)	Title of Abstract/ Paper	Title of the Proceedings	Page nos.	Conference Theme	Venue	Year
V.R. Divyesh , H. Kiren Vedi V. Kirubakaran T.K. Radhakrishnan	Adaptive explicit model predictive controller for coupled continuous stirred tank	Proceedings of Indian Control Conference	304-309	Control	IIT Madras	2015

	reactor using least squares support vector machines						
V. Kirubakaran, E. Ravi Teja, T.K. Radhakrishnan, N. Sivakumaran	Real time control of Non self-regulating cylindrical tank process using Multi Parametric Model Predictive Control	Proceedings of Trends in Industrial Measurements and Automation	30-35	Measurements and Automation	MIT, Anna Univ., Chennai, India	2013
V.Kirubakaran, S. Aditya T.K. Radhakrishnan	Adaptive LQG based Control of Blood Glucose Concentration in Type 1 Diabetics	Proceedings of Trends in Industrial Measurements and Automation	67-71	Measurements and Automation	MIT, Anna University, Chennai, India	2013
Nikhil Avantsa, V.Kirubakaran, T.K.Radhakrishnan	Design of Sliding Mode Controller for an Ideal Reactive Distillation Column	Energy Systems Modeling, Optimization and Control		Optimization and Control	NIT Durgapur, India	2013
M. Keerthana, R. Kiran, T.K.Radhakrishnan	Laguerre Model Based Control System for Ideal Reactive Distillation Column	CHEMCON		Chemical Engg.	Annamalai University, Chidambaram	2010
S.R.VijayaRaghavan T.K.Radhakrishnan	Parallel Cascade Control System Design for Ideal Reactive Distillation Column	CHEMCON		Chemical Engg.	Vizakhapatnam	2009
Rajni Jain, N.Sivakumaran T.K.Radhakrishnan	Design of Self Tuning Fuzzy Controllers for Nonlinear Systems	CHEMCON		Chemical Engg.	Vizakhapatnam	2009
Rajni Jain, T.K.Radhakrishnan N.Sivakumaran	Design of Multi-model Based Controller for a Heat Exchanger	Proceedings of the Chemical Engineering Congress and CHEMCON		Chemical Engg.	Chandigarh	2008
Rajni Jain, N.Sivakumaran T.K.Radhakrishnan	Control of Heat Exchanger using Hybrid Fuzzy-PI	National Symposium on Instrumentn		Instrumentation	Andhra Univ, Visakhapatnam	2008
S. Subathra, Harikumar, N. Sivakumaran T.K.Radhakrishnan	Fuzzy Control of a Multivariable System	Proceedings of the First National Conference on Instrumentation Systems Measurements		Instrumentation Systems Measurements	Pondicherry	2008
V.S.V.B. Suresh, T.K.Radhakrishnan	A Comparative Study of De-noising Methods	Proceedings of the First		Instrumentation	Pondicherry	2008

N. Sivakumaran	for Sensor Data using Filters and Wavelet Transforms	National Conference on Instrumentation Systems Measurements		Systems Measurements		
T.S.J. Praveen Kumar, K. Hariprasad, V. Subadra, T.K.Radhakrishnan	Multivariable Nonlinear Model Predictive Control of Cement Mills	Proceedings of the Chemical Engineering Congress and CHEMCON		Chemical Engg.	Calcutta	2007
S.R.Indhumathi, VineeshRavi P. Kalaichelvi, T.K.Radhakrishnan	Control System Design for Ideal Reactive Distillation Column'	Proceedings of the Chemical Engineering Congress and CHEMCON		Chemical Engg.	Calcutta	2007
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