

BIO DATA

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Permanent Address:

No.23/5 Raja Street,
Thiruvilandhur,
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Nagai Dist,Tamilnadu

Gender : female

Marital Status : Married

Nationality : Indian

Objective:

To carve a niche for myself in your esteemed concern with willingness to accept responsibilities and constantly learning new concepts and technologies.

Education

- **Pursuing Ph.D** in Dept of *Instrumentation Engg*, M.I.T Campus, Anna university, Chennai , Jan 2020 , Part time.
- **Master degree** in *Instrumentation Engineering* from Anna university -MIT campus, chennai (2010 passed out)
CGPA -8.51
- **Bachelor degree** in *Instrumentation and control Engineering* from A.V.C College of Engineering(2007passed out)
Marks %-82
- **Higher secondary certificate** from Guru Sambandar Mission Matriculation Higher secondary school, Mayiladuthurai
Marks % - 89.9
- **Secondary School Leaving Certificate** Guru Sambandar Mission Matriculation Higher secondary school , Mayiladuthurai
Marks % - 86

Professional/Teaching/Research Experience

- Working as **Teaching Fellow** at *M.I.T Campus, Anna university , Chennai* from july 2019 to till now.
- Worked as **Assistant professor** at *B.S.Abdur Rahman university, Chennai* from August 2010 to January 2016

Areas of Interest

- Process control
- Industrial automation

Technical tools

- Yokogowa DCS and Omron PLC
- Matlab&LabVIEW

Achievements

- M.E First class with Distinction at Anna university - M.I.T campus.
- B.E - Anna university 11th rank holder and gold medalist

No. of Publications/FDP/Workshop/Seminar

Publications			FDP	Workshop/Seminar Organized	Workshop/Seminar/FDP attended
Journal	International Conference	National Conference			
05	08	08	04	06	30

International Journal published

1. A paper titled " Fractional Filter Based Internal Model Controller for Non Linear Process " published in Lecture notes on Computational Intelligence, Cyber Security and Computational Models, Advances in Intelligent Systems and Computing 412, DOI 10.1007/978-981-10-0251-9_52, p.no 565-574 , Springer 2015
2. A paper titled "Load Frequency control using IMC based PID controller" published in International Journal of Scientific & Engineering Research, volume 5, Issue 4, April-2014, ISSN 2229-5518.
3. A paper Titled "Investigation on performance of fractional order PI controller for a class of Fractional order systems", published in International Journal for Research and Development in Engineering, ISSN:2279-0500, Special issue, pp -514-520.
4. A paper titled " Modeling and simulation study on fractional and Integer Order PI controller for SISO process", published in International Journal of Science , Engineering and Technology Research , Volume 3, Issue 3, March 2014, ISSN:2278 7798 :pp:396-373.
5. A paper Titled "Fractional control of a Nonlinear process", published in IEEE, International conference in Electrical Engineering (ICAEE) 2014-pp:1-4.

International conference Attended

1. A paper Titled "Fractional Filter Based Internal Model Controller for Non Linear Process" is presented in the 2nd International Conference on Computational Models, Cyber Security & Computational Intelligence (ICC³), PSG Tech engineering College, and Coimbatore on 19th December 2015.
2. A paper titled "Nonlinear PI control of pH process" is presented in International Conference on Emerging Trends in Engineering Research (ICETER), Vels University, Chennai held on 24th and 25th April 2015.
3. A paper titled "Analysis on Closed Loop Performance of Class Fractional Order Systems" is presented in International Conference on Modeling & Simulation (ICMS'15), Sastra University held on 25th& 26th March 2015.

4. A paper titled "Load Frequency Control using IMC based PID Controller" International Conference on Electrical, Communication & Computing (ICECC-2014) pp. 355-358, Tagore Engineering College, Rathinamangalam, Chennai-127, held on March 13th& 14th, 2014.
5. A paper titled " Digital realization of fractional order PI controller using continued fraction expansion method for a nonlinear process " is presented in TIMA 2013, Madras institute of technology, Anna university - Chennai, pp-132-136.
6. A paper titled ,"Application of fractional calculus to control system - magnetic levitation system" ICAMM, International Conference On Applied Mathematical Models- Jan 2, 2014 , pp. 464-466 .
7. A paper titled "Fractional control of a nonlinear process", authored by Ms. P. Anbumalar, AP/EIE, ICAEE '14, International Conference on Advances in Electrical Engineering, January 9-11, 2014, VIT University, Vellore, India.
8. A paper titled "Design and implementation of fractional order PI controller for interacting nonlinear system" authored by Ms. P. Anbumalar, AP/EIE and S. Divya, 2nd year M.Tech was presented at the International Conference on Modeling, Optimizing and computing, ICMOC 2012, Noorul Islam Centre for Higher Education, Kumarakoil, 10th - 11th April 2012.

National conferences attended

1. A paper titled "Artificial neural network based state estimation for heat exchanger " is presented in on National Conference on Trends In Instrumentation And Automation , Vellammal Engineering College , Chennai held on 10th April 2015.
2. A paper titled, "Performance Analysis of decentralized PID controller for a nonlinear process " , Proceedings of the Conference on Recent trends in instrumentation, control &Automation -2014,Sai ram Engineering college, Pn-70-74.
3. A paper titled, "Investigation on Performance of Fractional Order PID Controller for a Class of Fractional Order Systems" , presented in National Conference in RMK college, Chennai.
4. A paper titled , "Design of Nonlinear PID Controller for pH Process Using Locally Linear Models", presented in National Conference in RMK college, Chennai.
5. A paper titled , " Investigation on Performance of Fractional Order PI Controller for a Class of Fractional Order Systems " is presented in the National Conference Proceedings on Methods Enriching Power and Energy Development , 26th March 2014 , Jeppiar engineering college.
6. A paper titled ' Optimal state feedback control by minimizing error of control for CSTR process" was presented at the National conference on Control, communication & Information Technology, organized by Department of EIE, on 6th May 2013 at Easwari

7. A paper titled ' Application of fractional calculus in control system design" presented at the National conference on Control, communication & Information Technology, organized by Department of EIE, on 6th May 2013 at Easwari Engineering college Chennai.
8. A paper titled "Design of fractional order PI controller " authored was presented in the National Conference on Intelligent Control Systems & Automaton Techniques (NCICSAR-2013) organized by Dept. of Instrumentation & Control Engineering, Sairam Engg. College, pp 81-84 on February 28, 2013.

Faculty development program attended

1. Attended AICTE sponsored short term training program (STTP) on “machine learning with python in data science- Applications and research perspectives ” from 7.9.20 to 12.9.20 (Phase II) by SRM institute of science and technology , kattankulathur.
2. Attended AICTE Sponsored one week Online Short Term Training Programme - Phase 3 on topic Machine Learning with Python in Data Science - Applications and Research Perspectives from 19/10/2020 to 24/10/2020 ,SRM Institute of Science and Technology, Kattankulathur .
3. Attended short term course on “Process Control” organized by the department of chemical engineering from 15th to 19th December 2014, IIT -madras.
4. Attended the five days training programme on "DCS Overview" conducted by Yokogawa India Limited at B.S. Abdur Rahman University from 15.11.2011 to 19.11.2011.

Workshop /seminar attended

1. Attended FDP on “ Foundations of deep learning ” organised by SICCEERI CSIR on 22- 26 march 2021.
2. Attended workshop on ATAL sponsored five days online FDP on “Mathematics for Data sciences ” organised by Kumaraguru college of Technology on 26 to 30th july 2021 .
3. Completed Nptel Course On ‘ Data Science for Engineers ’ , delivered by Prof. Rengaswamy and Prof. Shankar Narasimhan IIT Madras.
4. Attended webinar on "AI and ML for Beginners" by Dr. U. Selvakumar, N-Side, Senior Data Science Consultant, Noesis Solutions, ML Development Engineer, Belgium on 04.07.2020 from Department of Electronics and Communication Engineering, SRM TRP ENGINEERING COLLEGE, TRICHY, Tamil Nadu, India .
5. Attended Proteus training organized by department of instrumentation ,M.I.T campus on 4, 5 august 2020.

6. Webinar on teaching with matlab- with a focus on signals, communication systems, controls and power converters on 6th october organised by mathworks.
7. Attended webinar on Solving ODEs and PDEs in MATLAB on October 15, 2020 organized by MathWorks.
8. Attended training program on the topic "Introduction and hands on training for PLCs and DCS" organized by Department of Instrumentation Engineering, MIT Campus Anna University Chennai on 28.10.2020 and 29.10.2020
9. Attended two days workshop on "Wavelets for image processing"- August 6 and 7th 2015 organized by IEEE communication society- IEEE madras section.
10. Attended pre-conference tutorial on "Advanced process control" on 22nd December 2013, MIT, Anna University, Chennai.
11. Attended training on Siemens PLC on 11th, 18th and 19th January, 2013 by Esskay services.
12. Attended workshop on "Violence against women" organized by Women Empowerment Cell at B.S.Abdur Rahman University, on 16th February 2013.
13. Attended a National Level seminar on "Fractional Order Modeling and Control" on 27th August 2013, B S Abdur Rahman University, Vandalur, Chennai -48.
14. Attended a two day work shop on "Digital Image processing using MATLAB & LABVIEW", ISA Crescent student section, B S Abdur Rahman University, Vandalur, and Chennai 48 on September 2013.
15. Attended the National Conference on "Balancing Work and Life" organized by Crescent Business School, B.S. Abdur Rahman University held on 4th February 2012.
16. Attended E-Content workshop organized by the faculty training academy of B.S.Abdur Rahman University held during 23rd to 25th January 2012.
17. Attended two day workshop on "Modern PID controllers and their capabilities" conducted by ISA south India section, Chennai at CPCL RESOT, Chennai -600018 from 13.12.2011 to 14.12.2011.
18. Attended two day workshop on "Smart Sensors for Industrial applications" conducted by Dept. of Instrumentation & Control Engg., Sri Sairam Engineering College, Chennai on 1/12/11 & 2/12/11.
19. Attended three day workshop on "MATLAB programming" conducted by Dept. of Instrumentation Engg., MIT campus anna university, Chennai-44 on 22-24/11/10.

Organizing Training programs/Seminar/workshop

1. Attended Dr.P.K Endowment Lecture - 30.03.2021 by Dr. Srinivas Palanki on "Dynamic Simulation and Control of a Natural Gas Dehydration Plant under Upset Conditions".
2. Organized hands-on training with Matlab and Simulink on 5.9.2015 for the benefit of UG and PG students.

3. Coordinated national level technical symposium "PRECISION+ '15" , B.S. Abdur Rahman University, Chennai on January 28th 2015,
4. Organized one day workshop on "Basic concepts of control system using Labview and Matlab" for the benefits of UG students at process control lab, B.S. Abdur Rahman University, Chennai on 6thSeptember 2014.
5. Coordinated a National Level seminar on "Fractional Order Modeling and Control" on 27th August 2013 for the benefit of research scholars, faculties and students at Seminar Hall I, B S Abdur Rahman University, Vandalur, Chennai -48.
6. Coordinated the ISA leadership meet 2012 workshop organized by EIE Dept., B.S.Abdur Rahman University held on 28/3/12.
7. Coordinated a training programme on "LABVIEW and its applications" on 26th March 2012 for the benefit students, research scholars and faculty members of B.S. Abdur Rahman University, Chennai - 48.

Subjects handled/Familiar

Nonlinear Control System, Industrial Instrumentation, Power Plant Instrumentation, process control, Multivariable control, Programmable Logic control , Distributed control system, Transducer Engineering.

Students mini- projects :B.S.Abdur Rahman university

a) Under Graduate

- Nonlinear control of process with input multiplicities-May 2015
- Boiler control using Distributed Control system -May 2014
- Digital realization of fractional order PI controller by continued Fraction expansion method for pressure process - May 2013
- Optimal state feedback control by minimizing error and control effort for CSTR process-May 2013.
- Design of decentralized PID controller for a nonlinear process-May 2012.

b) Post Graduate

- Fault diagnosis in heat exchanger - May 2015
- Fractional order controller for nonlinear dynamic system- May 2012.

International Society Activities

- Member of ISRD- International Society for Research and Development

Department/Institution Responsibilities: B.S.Abdur Rahman university

- Member of Board of Studies
- NAAC department co-coordinator
- Class advisor - 2011-2015 Batch
- Department Academic Audit Committee (DAAC) coordinator
- Department alumni coordinator
- Handled diploma course on PLC and DCS

- Class committee chair person
- Department library coordinator
- Electrical measurements lab in-charge
- Lab in-charge - Process control Lab and
- UG project co-coordinator.

Department/Institution Responsibilities/Contribution: *M.I.T campus-Anna university*

- NBA Work - Prepared CO-PO Mapping for the theory subjects and labs for the Department of RPT.
- Acted as Internal review committee member of U.G mini project
- Real time simulation of Temperature process, pressure process and cascade control of level/flow process has been carried out in Process control lab.
- Coordinated as moderator on RSD 20 for technical session 4 on September 5th 2020.
- Coordinated PG End Sem viva voce Exams - IN7411 Project Work Phase II for panel 1 on 28.9.2020.
- Assisted in First year induction Program on topic "Overview of process control and its lab" on 13.11.2020
- Prepared list of books for library with reference to R2019 regulations.
- Dept Library Incharge

Place: Chennai

Date :

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