

A. LAKSHMI SANGEETHA

Assistant Professor III,
Dept. of Electronics & Instrumentation
Velammal Engineering College
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Education

Ph.D., Anna University, Chennai- 25, March, 2018
ME CSE Anna University, Chennai, June, 2008, **First Class with Distinction 82.7%**
BE I&C M. K. University, Madurai, April, 1999, **First Class with Distinction 75.9%**

Dissertation

Title : **Various Network Structures for the Automation of Industrial Processes**
Advisor : **Dr. N. Bharathi, Prof., & Head, Dept. of EIE, KCG College of Technology, Chennai**

The work presents various network architectures, such as LAN, WAN, Mobile and Wireless to monitor and control of Industrial processes.

Professional Experience

2010 (Oct.)- Till Date, Asst. Prof., III, Dept. of E&I, Velammal Engineering College, Chennai
2008 (June) – 2010 (Oct.) Sr. Lecturer, Dept. of E&I, Velammal Engineering College, Chennai
2005 (June) – 2006 (Oct.) Sr. Lecturer, Dept. of E&I, MAM College of Engg., Trichirappalli
1999 (Dec.) – 2005 (June) Lecturer, Dept. of E&I, MAM College of Engg., Trichirappalli

Honors and Awards

- ✓ **Madurai Kamaraj University Rank Holder** (1999)
- ✓ **Young Scientist Award under Fast Track Scheme, DST** (2009)

Professional Activities

Professional Society Memberships

Indian Society for Technical Education (ISTE), *Life Member*

Funded Projects

| Name of Agency | Title of project | Period of support | Status | Cost in Lakhs |
|---|--|-------------------|-------------------|---------------|
| DST Fast Track Scheme (NO. SR/FTP/ETA-048/2009 , dt 27.11.09) | Remote monitoring and control of programmable logic controller (PLC) based processes using embedded web technology | Nov' 09- Nov' 11 | Completed- | 6.60 |
| DST Instrument Development Programme (IDP) No.: IDP/IND/2012/22 dt. 25/09/2013 | Wireless sensor network enabled earlier real time detection of spoilage in stored grain' | Oct.'13- Apr',16 | Completed | 27.72 |
| DST Instrument Development Programme (IDP) No.: DST/TSG/PT/2011/177 dt. 07/05/2012 | Development Of Optical Sensors For Simultaneous & Non-Invasive Detection Of pH & Dissolved Oxygen In Bioreactors | Aug.'12- Aug'14 | Completed (Co-PI) | 30.68 |
| DST Cognitive Science Research Initiative (CSI) D.O. No.: SR/CSI/09/2011 dt. 25/05/2013 | Cognitive Sensor Fusion Based Real-Time Object Detection & Recognition System | May' 13- May' 16 | Completed (Co-PI) | 19.78 |
| DST SEED – TIE Scheme SSD/NI/005/2005 dt. 02/05/2014 | Implementation of Customizable Wireless Sensor Node for Monitoring Activity & Health of Elderly people | May '14- May '17 | Ongoing (Co-PI) | 30.56 |
| DST- Satyam- SR/SATYAM/103/2016 | Implementation of cognitive body sensor networks to ensure better and safer yoga postures to avoid injuries | Nov'-16 | Submitted (Co-PI) | 25.57 |

Publications

International Journals

1. Lakshmi Sangeetha. A. and Balaji Ganesh. A. An Embedded Based Digital Controller for Thermal Processes, Journal of Sensors and Transducers, 2008, 87(1), 46-51. **25 Top List of Most Downloaded Articles in February 2009* (e-Journal; Publisher- International Frequency Sensors Association (IFSA) ISSN: **1726-5479- www.sensorsportal.com**)
2. A. Lakshmi Sangeetha, B. Naveen Kumar, A. Balaji Ganesh and N. Bharathi, Experimental Validation of PID Based Cascade Control System Through SCADA-PLC-OPC and Internet Architectures, Measurement, 2012, 45, 643-649. **Elsevier, Impact Factor: 1.526. *25 Most hottest article in the year 2012.**

3. A. Lakshmi Sangeetha, N Bharathi, G Kalaichitra, J Abdul Razziq, A Balaji Ganesh, Creation of Indigenous Web-page for the Automation of a Cascade Control System, in International Conference on Soft Computing Systems (ICSCS 2015) - Australian Journal of Basic and Applied Sciences , 9 (16) Special 2015, Pages: 184-187
4. A. Lakshmi Sangeetha, N. Bharathi, A. Balaji Ganesh, Performance validation of a cascade control system through various network architectures, Egyptian Informatics Journal, Available online 7 March 2016, ISSN 1110-8665, <http://dx.doi.org/10.1016/j.eij.2016.02.001>. Elsevier
5. A. Lakshmi Sangeetha, N. Bharathi, A. Balaji Ganesh, Particle Swarm Optimization Tuned Cascade Control System in an Internet of Things (IoT) Environment, Measurement 117 (2018) 80–89, <https://doi.org/10.1016/j.measurement.2017.12.014>- Elsevier, Impact Factor 2.30
6. A. Lakshmi Sangeetha, N. Bharathi, A. Balaji Ganesh, Internet mediated automation of a Cascade Control System-an Engineering Laboratory Experiment, Measurement (Submitted)

International Conference Proceedings

7. A. Lakshmi Sangeetha, N. Bharathi, D. Gideon Mathew Blesson, Siva V Girish, A. Balaji Ganesh, “CC3200 based real time remote monitoring and control of an industrial process” Proc. IEEE International Conference on Wireless Communications Signal Processing and Networking (WiSPNET) 2016, Sri Sivasubramaniya Nadar College of Engineering, Chennai-603110, India, from March 23 to 25, 2016, pp 757, 978-1-4673-9338-6/16
8. A. Lakshmi Sangeetha, N. Bharathi, G. Kalaichitra, A. Balaji Ganesh, Web Enabled Automation of a Cascade Control System, Proc. Of Int. Conf. on Modeling, Optimization and Computing (ICMOC 2014), April 10-11, 2014
9. A. Lakshmi Sangeetha, S. Edward Jero, Ramu Palaniappan, A. Balaji Ganesh, N. Bharathi, Integration of Customizable Wireless Sensor Node with Cascade Control System, Proc. Of CNC 2013, Elsevier
10. A. Lakshmi Sangeetha, B. Naveen Kumar, A. Balaji Ganesh and N. Bharathi, Experimental Validation of PID Based Cascade Control System Through SCADA-PLC-OPC

Architectures, Proc. Of ICCCI 2012, Jan 10-12, 2012, Digital Object Identifier: 10.1109/ICCCI.2012.6158893 IEEE Explorer

11. Balaji Ganesh. A., Lakshmi Sangeetha. A and V.R.Ravi. Network Mediated Architecture for Industrial Processes, Proc. Of Electro-2009, 166-169 (IEEE Explorer)
12. Lakshmi Sangeetha. A. and Balaji Ganesh. A. Web Mediated Digital Embedded Controller for Thermal Process, Proc. of International Conference on VLSI and Embedded Systems, Velammal Engineering College, Chennai, February 14-16, 2008, pp 213

Personal Profile

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| Date of Birth | 15-05-1978 |
| Gender | Female |
| Nationality | Indian |
| Passport | K5032556 |

References

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