Name: Nirmala Sanikommu

Qualification: B.tech [ECE]
Designation: Scientist-D

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Experience: Working at ARCI since 1994

Research Areas of Interest:

• R&D support to majority of the centers of ARCI

- Analog and Digital control
- Embedded design & development using Microcontrollers
- National Instruments LabVIEW software and hardware
- Programmable Logic Controller
- Sensors and signal conditioning
- Data Acquisition Systems
- Commissioning and troubleshooting of complex analytical, process control equipment such as,
 - LASER control systems
 - o CVD and PVD systems
 - o Detonation Spray, Plasma Spray, Flame spray, Cold Spray etc.
 - o CNC and ROBO systems
 - o Servo control, Vacuum, Pneumatics and Chiller control systems
- In house development of hardware and software for Advanced Detonation Spray coating system.

List of Journal Publications

- a. [*]Published a paper entitled "Detection of drill through in Laser percussion drilling" in 'Lasers in Engineering, Vol. 17, pp. 361-369.
- b. [*] Presented/published a paper entitled 'Current status of MEMS in INDIA' at Kuala Lumpur, Malaysia 6-7 September 2005 /in proceedings of 5th International workshop on Microelectronics pp 23-37.

- c. [*] Presented / published a paper on "A Reliable Electronic Ignition System for a Detonation Chamber" in a conference conducted by ISOI (Instrument Society of India) during October 2007 at Tiruchengode, Tamil Nadu/ in J. Instrument. Soc. India Vol. 38(4) December 2008 pp. 243-247.
- d. [*] Published a paper entitled, "Centralized monitoring and control of Air conditioning units" in Journal of Scientific & Industrial Research, Vol.68, November 2009, pp.934-939.
- e. [*] Presented/published a paper entitled, "Integration of a High Power Laser with a CNC workstation" at the International Conference on Instrumentation ICI2009 during at Pune/ in *J. Instrument. Soc. India Vol.* `40(4) December 2010 pp. 254-255.
- f. [*]Published a paper entitled "A virtual instrument for pulsed electro deposition: A novel technique for obtaining graded coatings" in J. of Scientific & Industrial Research Vol. 70, December 2011, pp. 1026-1028
- g. [*]Presented/published a paper entitled, "Automation of Arc Discharge setup for production of Carbon Nanotubes" at 37th National Symposium on Instrumentation held at CSIO, Chandigarh on 31st October, 2012/in *J. Instrument. Soc. India Vol. 43, No. 1 March 2013 pp. 55-57.*
- h. [*]Published a paper entitled, "A computer based approach for developing functionally graded and layered coatings with detonation spray coating process" in *J. of Scientific & Industrial Research Vol.72, August 2013, pp.477-480*
- i. [*]Presented/published a paper entitled "A Virtual Instrument for Thermal Fatigue Testing of Die Casting Tool Steels" at 38th National symposium on Instrumentation held at BVB college of Engineering & Technology, Hubli /in J. Instrument. Soc. India Vol. '43(4) December 2013 pp. 261-262...
- j. [*]Presented/published a paper entitled "Computer Control of a Thermal Cycling System" in J. Instrument. Soc. India Vol. `45(2) June 2015 pp. 138-139.
- k. [*]Published a paper entitled, "Mixing Torque Measurement-an Effective Tool for Identifying Critical Binder Volume Concentrations for Ceramic Processing" in *J. of Scientific & Industrial Research Vol.74*, September 2015, pp.504-507.
- 1. [*]Coauthor for a published paper entitled "Development of an Arduino based Charge Controller for a Solar" at 39th National symposium on Instrumentation held at Gurukul Kangri University, Haridwar, and 18th October, 2014 / in *J. Instrument. Soc. India Vol. 45(3)*, pp 180-181, September, 2015

List of Patents; Nil

Conference proceedings: [*]Published a paper entitled 'Current status of MEMS in INDIA' in proceedings of 5th International workshop on Microelectronics/pp 23-37 held at Kuala Lumpur, Malaysia 6-7 September 2005.

Contribution to Books: Nil

Affiliation to Professional societies: Member of IEEE

Member of Instrument Society of India

Awards & Honors: Nil

