Name: Nirmala Sanikommu

**Qualification**: B.tech [ECE]

Designation : Scientist-D

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**Experience:** Working at ARCI since 1994

## Research Areas of Interest:

## **Development of applications using**

- Analog and Digital control
- Embedded design & development using Microcontrollers
- National Instruments LabVIEW software and hardware
- Programmable Logic Controller
- Commissioning and troubleshooting of complex analytical, process control equipment such as,
  - LASER control systems
  - CVD and PVD systems
  - Detonation Spray, Plasma Spray, Flame spray, Cold Spray etc.
  - CNC and ROBO systems
  - Servo control, Vacuum, Pneumatics and Chiller control systems

## **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 5<sup>th</sup> 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.

List of Patents: Nil

## **Conference proceedings:**

[\*] Published a paper entitled 'Current status of MEMS in INDIA' in proceedings of 5<sup>th</sup> *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