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Ph.D	Thin Film based Temperature Sensors, from Panjab University Chandigarh.
M.Tech	Microelectronics and VLSI design , IIT Kharagpur
B.Tech	REC, Jaipur
PhD Guiding	03
M.Tech Guided	25

## List of Publication (for last Five years):

### A) International Journals

- Fabrication and linearisation of conformable POMANI-Mn<sub>3</sub>O<sub>4</sub> nanocomposite based thermistor for temperature monitoring applications in prosthetic gloves**  
*A Kumar, ML Singla, A Kumar, JK Rajput - Sensors and Actuators A: Physical*, 285, 588-598, 2019.
- SnO<sub>2</sub>-Glycine Functionalised CNTs based electronic nose for detection of explosive materials**, *Arvind Kumar, Jaspreet Kaur Rajput, Sukhvir Kaur, Priya Arora, Harminder Singh, Sensor Letters*, 14(7), 733-739 2016
- Study of Zr<sub>x</sub>Zn<sub>0.5-x</sub>Ni<sub>0.5</sub>Fe<sub>2</sub>O<sub>4</sub> 0≤x≤0.25: Synthesis, Structural, Magnetic and Electrical Properties**, *Jasmeen Saini, Rupesh Kumar, Jaspreet Kaur Rajput, Arvind Kumar, Journal of Magnetism and Magnetic Materials*, Journal of Magnetism and Magnetic Materials 401, 770–774, 2016.
- POMANI-Mn<sub>3</sub>O<sub>4</sub> based thin film NTC thermistor and its linearization for overheating protection sensor**, *Arvind Kumar, Madan Lal Singla, Amod Kumar, Jaspreet Kaur Rajput, Materials Chemistry and Physics*, 156, 150-162, 2015.
- HCl/CSA doped POT-Mn<sub>3</sub>O<sub>4</sub>nanocomposites based conformable thin film temperature sensor for prosthetic hand gloves**, *Arvind Kumar, Madan Lal Singla, Amod Kumar, Jaspreet Kaur Rajput, Journal of Materials Science: Materials in Electronics*, 26(3), 1838-1852, 2015.
- Designing of ALU using Vedic Multiplier for Single Precision IEEE754 Standard Floating Point Numbers**, *Satnam Singh Shergill, Arvind Kumar, International Journal of Applied Engineering Research* 10(12), 29357-29365, 2015.
- Enhanced BeeGA algorithm for route optimization in Vehicular Ad Hoc networks (VANETs)**, *Daljeet Singh Motton, Arvind Kumar, International Journal of Applied Engineering Research* 10(13), 32803-32812, 2015
- Performance analysis of hybrid routing protocol for application in vehicular Ad Hoc networks**, *Daljeet Singh Motton, Arvind Kumar, International Journal for Research In Technological Studies*, 2 (6), 50-54, 2015

9. **A Review Report on Existing Routing Protocols in Vehicular Ad Hoc Networks (VANETS)**, *Daljeet Singh Motton, Arvind Kumar*, **Int. Journal of Electrical & Electronics Engg.** Vol. 2, Spl. Issue 1, 105-108, 2015
10. **Carbon Nanotubes Based Sensor for Detection of Traces of Gas Molecules- A Review**, *Arvind Kumar, Jaspreet Kaur Rajput, Sukhvir Kaur*, **Int. Journal of Electrical & Electronics Engg.**, Vol. 2, Spl. Issue 1, 2015
11. **Design and Implementation of Optimized 4:1 Mux Using Adiabatic Technique** *Dikshant Kamboj, Arvind Kumar, Vijay*, **International Journal of Advance Research In Science And Engineering**, Vol. No.3, Issue No.9, 98-108, 2014
12. **Local positioning system using near field communication**, *Baldeep Singh, Arvind Kumar, Sabhyata*, **American International Journal of Research In Science, Technology Engineering & Mathematics, AIJRSTEM** 14-778, 165-167, 2014
13. **Optimized Conditional Privacy Preservation Protocol for NFC Applications using Genetic Algorithm**, *Baldeep Singh, Arvind Kumar, Sabhyata*, **International Journal of Computer Applications**, Volume 102 - Number 9, 7-11, 2014
14. **Design of High Speed Full Adder using Improved Differential Split Logic technique for 130nm Technology and its implementation in making ALU**, *Gurleen Kaur, Arvind Kumar, Jatinder Singh*, **International Journal of Computer Applications**, 40-47, 96(18), 2014.

## **B) International book**

1. Chapter entitled “Analysis of Transfer Characteristic of Junctionless GaAs nanotube MOSFET with Hafnium Oxide Dielectric” in **Advances in Intelligent Systems and Computing**, Springer Publications, volume-93, pp473-479 *Raj Kumar, Arvind Kumar, 2019*
2. Chapter entitled “Polymer Nanocomposites-Materials for Sensor Technology” in book - *Engineering Applications of Nanoscience and Nanomaterials/ 197-216*, Volume 757 of Material Science Forum, Trans Tech Publications, Switzerland, *Arvind Kumar, Jaspreet Kaur Rajput, 2013*

## **C) Research Area:**

1. **Sensor Electronics**
2. **Semiconductor Devices**
3. **Photovoltaics**

## **D) List of submitted project for the implementation of research plans:**

Sr.no.	Title of the project	Funding Agency (Budget)
1.	<b>Lead Free Perovskite Cell for Harnessing Solar Energy</b>	STRIDE-UGC (49lakh)