

## AMANDEEP SINGH

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### WEB-LINKS

<https://www.linkedin.com/in/amandeep-singh-ab366997/>

<https://www.upwork.com/freelancers/~0191a3562c81be0e45?s=1110580753891577856>

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### Scholar Links

<https://scholar.google.com/citations?user=Vd9zAlgAAAAJ&hl=en>

h-index : 3

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### PROFILE

Experienced researcher with experience of working in defense projects. Skilled in electronics design and testing, antenna design and simulation, FEM, material science, material testing. Pursuing PhD with objective to consistently learn and grow by applying innovative ideas and skills and to face new challenges where I can nurture my knowledge and thought to achieve new heights in career.

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### EMPLOYMENT HISTORY

**Baba Farid College of**

**Engineering and Technology,**

Bathinda

**Aug 2023 – till date**

**Assistant Professor**

**CSIR-CSIO,**

Chandigarh

**Dec 2019 – Jan 2022**

**Senior Research Fellow**

- Design and development of RF system for moisture measurement of made Tea.

**DRDO-TBRL,**

Chandigarh

**Jul 2014 – Jul 2019**

**Research Fellow**

- Design, development and simulation of electronic circuit of futuristic fuzes for armaments
- Testing and evaluation of Polyurethane potting material for shock mitigation of embedded electronics
- Design and development of high-g shock testing facility for embedded electronics

**SBS State University,**

Ferozpur

**Oct 2013-April 2014**

**Guest faculty**

- Teaching: Analog Communication, Digital Communication, Wireless Communication

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## **AREA OF INTEREST**

Analog and embedded system design and simulation, Patch antenna based design, IoT based System design, High strain rate testing and analysis of polymer materials, Mechanical and Materials Characterization, Mechanical Behaviour of Materials, impact dynamics, Finite element analysis

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## **SOFTWARES SKILLS:**

- PCB schematic and layout using OrCAD
- Structure simulation using HFSS and COMSOL
- Mechanical design and Simulation using ANSYS, SolidWorks, MSC NASTRAN

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## **PERSONAL SKILLS**

Communication, Problem solving, Innovation, Attention to details, Positivity, Hopefulness

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## **EDUCATION**

**Jan 2016 – Dec 2023**

**PhD Engineering**

Academy of Scientific and Innovative research (AcSIR), Ghaziabad (UP.)

**Aug 2011 – Dec 2013**

**Master of Technology,**

Electronics and Communication  
University College of Engineering,  
Punjabi University, Patiala

**Percentage: 70.35%**

**Aug 2007 – Aug 2011**

**Bachelor of Technology,**

Electronics and Communication Engineering  
Punjab Technical University, Jalandhar (IN)

**Percentage: 71.74%**

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## SCI-PUBLICATIONS

- **Amandeep Singh**, Vijay Kumar, Praveen Kumar Khosla, Vhatkar Dattatraya Shivling, Ashish Saini, Sajjan Kumar, Virender Singh, “Investigations of an Innovative Drop Test Facility for Shock Evaluation of Portable Electronics”, *Advanced Theory and Simulations*, 2401006, 2025. (IF: 2.9)
  - SA Chander, B Datta, **A Singh**, VD Shivling, “Feasibility of Ratchet–Pawl mechanism for trans-phalangeal finger prosthetic: a minimalistic design approach”, *Journal of the Brazilian Society of Mechanical Sciences and Engineering*, 46(3), 2024, (IF: 1.8)
  - VD Shivling, **Amandeep Singh**, et.al. “Feasibility study of patch antenna for monitoring moisture content of made tea”, *Journal of Microwave Power and Electromagnetic Energy*, 56(3), 2022. (IF: 1.85)
  - **Amandeep Singh**, VD Shivling, PK Khosla et.al. “Strain hardening and shock mitigation response of polyurethane under high strain rates”, *AIP Advances*, 11(11), 2021. (IF: 1.624)
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## JOURNAL/CONFERENCE PUBLICATIONS

- **Amandeep Singh**, Praveen Kumar Khosla, Vhatkar Dattatraya Shivling, Nazim Hajiyev, Amandeep Kaur, Prabhjot Kaur, “Design and evaluation of an innovative low-cost intermediate strain rate drop weight impact tester for soft materials”, *AIP Conference Proceedings*, 3227(1), 020001, 2025.
- **Amandeep Singh**, VD Shivling, PK Khosla, Vijay Kumar, “Shrinkage measurement of polyurethane potting material using strain gauge technique”, *International Conference on Advanced Materials, Metallurgy and Manufacturing*, November, 2022
- **अमनदीप स हिं**, “फेराइट पदार्थ का पैच एन्टीना की क्षमता पर प्रभाव”, *राष्ट्रीय वैज्ञानिक और तकनीकी संगोष्ठी*, TBRL, Chandigarh, Nov. 2016
- **Amandeep Singh**, Preeti Rani, Parul Sharma Ashish Saini, “Design of  $\text{Li}_{0.5}\text{Co}_{0.2}\text{Fe}_{2.3}\text{O}_4$  doped silicone rubber substrate based miniaturised flexible Microstrip Patch antenna, in 3rd National conference on Multifunctional Advanced Materials, organize by Himalayan center of excellence in Nanotechnology in Shoolini university, Solan, May-2016.

- **Amandeep Singh**, Mandeep Kaur, Design and implementation of Reed Solomon encoder on FPGA, Intern. Journal of Computer, Electrical, Automation, Control and Information, 7(9), 2013
  - **Amandeep Singh**, Mandeep Kaur, Study of Reed Solomon Encoder, International Journal of Innovative Research in Computer and Communication Engineering 1, no. 2 (2013).
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## PATENTS

- **IN202411028081**-Automatic Smart Plant Watering System  
**Inventors:** **Amandeep Singh**, Navdeep Kochhar, Hardeep Singh, Gursewak Singh, Virender Singh, Arshdeep Singh, Lovepreet Singh, Vishal, Sahil Kumar
- **IN202411028078** - Self-Powered Smart Shoes For Blind People  
**Inventors:** Gagandeep Singh, Ekta Gairola, **Amandeep Singh**
- **IN202411005518A**- Smart Attendance system using Deep Learning Neural Networks and Edge Computing  
**Inventors:** Er. Gursewak Singh, Dr. Jyoti Bansal, **Dr. Amandeep Singh**, Er. Sumeet Bharti, Mehakdeep Singh, Deepak, Rajan
- **IN202311088396**- Smart Dung Cake Making Device And A Method Thereof  
**Inventors:** Dr. Gagandeep Singh, Er. Hardeep Singh, Dr. Manpreet Singh, Er. Indraj Kumar, **Dr. Amandeep Singh**, Dr. Nimisha Singh.
- **IN202411098543**- portable puncture detection device and a method thereof  
**Inventors:** **Amandeep Singh**, Indraj Kumar, Lakhwinder Singh, Gagandeep Singh, Gursewak Singh.
- **IN202511055307**- WEATHER MONITORING SYSTEM USING IOT AND AI  
**Inventors:** Nisha Raheja, **Amandeep Singh**, Harmanpreet Singh, Indraj Kumar, Iqbaljot Singh, Bhavya Sharma, Himanshu, Balwant Singh, Narinder Kumar

- **IN202511050200** - AUTOMATIC FAULT DETECTION AND LOCALISATION SYSTEM FOR SAFETY OF PREMISES

**Inventors:** Nisha Raheja, Vishal Singh, Prabhjot Kaur, Amit Kumar, Harmanpreet Singh, Indraj Kumar, **Amandeep Singh**

- **IN202511035368** - SMART TIME-OF-FLIGHT RESPONSIVE EYEWEAR FOR STRESS SUPPORT

**Inventors:** Nisha Raheja, **Amandeep Singh**, Diya Goel, Rishav, Harmanpreet Singh, Indraj Kumar, Faisal Hassan Thoker, Muzamil Rashid Shah, Sartaj Ahmed Dar

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## TRAINING AND WORKSHOPS

- Workshop on "**Multiphysics Simulation**" organized by COMSOL at Chandigarh, October-2016
- Advanced Hands-on training on **CoventerWare software** at TBRL, Chandigarh (17 Dec 2018 – 21 Dec 2018)
- Advanced Training on **SimXpert and MSC Nastran** at TBRL, Chandigarh (17 Sep 2018 – 31 Oct 2018)

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## MEMBERSHIP

- Life time member of Indian Society of Systems for Science & Engineering (ISSE) Thiruvananthapuram.

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## ACADEMIC ACHIEVEMENTS

- GATE 2013 & 2016 Qualified
- UGC NET for Assistant Professorship

*I hereby declare that all the information given above is true and correct to the best of my knowledge.*

  
(AMANDEEP SINGH)