



Dr. Jaspinder Kaur

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(Ph.D. and a Researcher, 5+ years of experience in academics)

Dr. Jaspinder Kaur currently, working as an Assistant Professor in Department of Mechatronics Engineering at Chandigarh University, Mohali, Punjab. She completed her Ph.D. from National Institute of Technology Delhi, India and received M.Tech. degree from Deenbandhu Chottu Ram University of Science and Technology, Murthal (Sonapat). She has more than 5 years of teaching and research experience. She has number of publications in reputed SCI journals and international conferences. She has completed the international research internship programme from National Chung Cheng University, Taiwan (June-July 2019). Also, she is a visiting research scholar at National Chung Cheng University, Taiwan. Her research areas are transistor lasers, Group IV photonics and solar cells.

PUBLICATIONS:

Journal Papers (SCI): Published: 04, Communicated: 02

- Jaspinder Kaur, Rikmantra Basu and Ajay Kumar Sharma, “Effect of Separate Confinement Hetero-structure Layer on Tunnel Injection Transistor Laser Transmitter in High Speed Optical Communication Networks” - *Journal of Optics and Laser Technology – JOLT(Elsevier)* (SCI IF 3.819) (Published)
- Rikmantra Basu, Jaspinder Kaur, and Ajay Kumar Sharma, “Analysis of Direct Band-gap GeSn based MQW Transistor Laser for Mid-Infrared Applications”- *Journal of Electronic Materials – JEMS (Springer)* (SCI IF 1.976) (Published)
- Md Saddullah, Jaspinder Kaur, Rikmantra Basu and Ajay Kumar Sharma, “Analysis of Thin-film Direct Band-gap SiGeSn alloy based Heterostructure Solar Cell Featuring SiGe Absorber Layer” – *International Journal for Light and electron optics - Optik (Elsevier)* (SCI IF 2.514) (Published)
- Jaspinder Kaur, Gaurav Kumar and Rikmantra Basu “Analysis of Planar Heterojunction Perovskite Solar Cell featuring Double Hole Transport Layer & Backplane” (Published in *Silicon, Springer*) (SCI IF 2.5)

- Jaspinder Kaur, Rikmantra Basu and Ajay Kumar Sharma, “Optimized performance of nitride based tunnel injection transistor laser” (*Under review in Nano Communication Networks, Elsevier*)

Conference Papers (SCOPUS INDEXED): Published: 02, Accepted: 06, Communicated: 05

1.Jaspinder Kaur, Rikmantra Basu and Ajay Kumar Sharma, “Characteristics of Multiple Quantum Well Transistor Laser based on InGaAs alloy” –*The International Conference on Fiber optics and Photonics, Photonics 2018 (Published).*

2.Jaspinder Kaur, Rikmantra Basu and Ajay Kumar Sharma, “Group III-V Based Multiple Quantum Well Transistor Laser: A simulation based Analysis”- *Asia Pacific Radio Science Conference, URSI 2019 (Published).*

3. Jaspinder Kaur, Harjot Singh Gill, Saarthak, Anshul Pandey, “Design of Low Cost Arduino Based Master-Slave Transporter” *INDO-US CONFERENCE ON COMMUNICATION, AUTOMATION AND POWER ENGINEERING (ICCAPE-2021), (Accepted).*

4. Jaspinder Kaur, Harjot Singh Gill, Preetinder Singh, Sudeep Yadav, “A Novel Approach of Generating Electricity using Staircase featuring Piezoelectric Patches and DC Alternator” *INDO-US CONFERENCE ON COMMUNICATION, AUTOMATION AND POWER ENGINEERING (ICCAPE-2021), (Accepted).*

5. Jaspinder Kaur, Harjot Singh Gill, Ricky K Mathew, Adhidev, “Arduino Based Height Measurement System” *INDO-US CONFERENCE ON COMMUNICATION, AUTOMATION AND POWER ENGINEERING (ICCAPE-2021), (Accepted).*

6. Jaspinder Kaur, Harjot Singh Gill, Vinay Orsu, Banuprasad Pacha, “Design of Low-Cost Arduino Based Ultrasonic Radar” *INDO-US CONFERENCE ON COMMUNICATION, AUTOMATION AND POWER ENGINEERING (ICCAPE-2021), (Accepted).*

7. Sabyasachi Pramanik, Digvijay Pandey, Subhankar Joarder, Niranjnamurthy M, Binay Kumar Pandey and Jaspinder Kaur, “An Overview of IoT Privacy and Security in Smart Cities” *INDO-US CONFERENCE ON COMMUNICATION, AUTOMATION AND POWER ENGINEERING (ICCAPE-2021), (Accepted).*

8. Srithazith Dey Babu, Digvijay Pandey, Vishali Pathanai, Jaspinder Kaur, Nidhi Sindhvani, Rohit Kumar, “Prediction of Cardiovascular Disease Using MLP” *INDO-US CONFERENCE ON COMMUNICATION, AUTOMATION AND POWER ENGINEERING (ICCAPE-2021), (Accepted).*

9. Jaspinder Kaur, Harjot Singh Gill, K. Nazia, Laljeet, “Design of Arduino UNO Based Noavel Multi-Featured Robot” *10th International Conference on 'Computing, Communication and Sensor Network, CCSN 2021, Bhubaneswar, Odisha, India (Communicated).*

10. Jaspinder Kaur, Harjot Singh Gill, Franck, Jais Tomar, “DIY Smart Mirror using Raspberry Pi” *10th International Conference on 'Computing, Communication and Sensor Network, CCSN 2021, Bhubaneswar, Odisha, India (Communicated).*

11. Jaspinder Kaur, Harjot Singh Gill, Umang, “Sensors Based Advanced Bluetooth Pulse Oximeter System” *10th International Conference on 'Computing, Communication and Sensor Network, CCSN 2021, Bhubaneswar, Odisha, India (Communicated).*

12. Jaspinder Kaur, Harjot Singh Gill, Ajay, Jasmeet “Fingerprint Door Lock System using Arduino UNO and Bluetooth Application” *10th International Conference on 'Computing, Communication and Sensor Network, CCSN 2021, Bhubaneswar, Odisha, India (Communicated).*

13. Jaspinder Kaur, Rikmantra Basu, Harjot Singh Gill, “Modelling of Group IV Material Based MQW Transistor Laser” *10th International Conference on 'Computing, Communication and Sensor Network, CSN 2021, Bhubaneswar, Odisha, India (Communicated).*

Book Chapters: Accepted: 01, Communicated: 04

Jaspinder Kaur and Saarthak, ‘IoT for Healthcare Industry: Challenges and Opportunities” *CRC Book (Tylor and Francis Group), NTSIIAA 2021, (Accepted).*

Jaspinder Kaur, Saarthak, Harjot Singh Gill, “Smart Agriculture using Internet of Things (IoT)”, *Book Title: IoT Based Smart Applications, Springer (Communicated).*

Jaspinder Kaur, Harjot Singh Gill, Nihit Shyam, “Internet of Things (IoT) for Industry 4.0” *Book Title: IoT Based Smart Applications, Springer (Communicated).*

Jaspinder Kaur, Sudeep Yadav, Harjot Singh Gill “Internet of Things (IoT) for Sensor Based Smart Farming” *Book Title: IoT Based Smart Applications, Springer (Communicated).*

Jaspinder Kaur, Jaskaran, Nidhi, Rohit Anand, “Internet of Things (IoT) for Applications in Various Domains” *Book Title: IoT Based Smart Applications, Springer (Communicated).*