

# Books and Book Chapters

## Books

- 1. Nanoelectronic Devices for Hardware/Software Security**  
Balwinder Raj, Arun Kumar  
*CRC Press, Taylor & Francis, Nov 2021*  
(ISBN 9780367645427)
- 2. Multifunctional MIMO Antennas: Fundamentals and Applications**  
Yadwinder Singh, Shrivishal Tripathi, Balwinder Raj  
*CRC Press, Taylor & Francis, March 2022*  
(ISBN 9781032190341)
- 3. Advanced Circuits and Systems for Healthcare and Security Applications**  
Balwinder Raj, B B Gupta, Jeetendra Singh  
*CRC Press, Taylor & Francis, 8 September 2022*  
(ISBN 9781032039077)
- 4. AI for big data based engineering applications from the Security perspectives**  
Balwinder Raj, B B Gupta, Sandeep Singh Gill  
*CRC Press, Taylor & Francis, Dec 2022*  
(ISBN 9781032136134).
- 5. 3D Printing of Sensors, Actuators, and Antennas for Low-Cost Product Manufacturing**  
Rupinder Singh, Balwinder Singh Dhaliwal, Shyam Sundar Pattnaik  
*CRC Press, Taylor & Francis Ltd., February 2023.*  
ISBN 9781032046808, eBook ISBN 9781003194224  
DOI: <https://doi.org/10.1201/9781003194224>

## BOOK Chapters

- 1. Comparative Analysis of OFET for Low Power Flexible Electronic Devices Manufacturing**  
Bodade Sandip Vasudeo, Banoth Krishna, Parveen Kumar, Sandip Singh Gill, Balwinder Raj  
CRC Press, Taylor & Francis, April 2021
- 2. Design and Analysis of VTFET Nanoscale device for Healthcare Safety System**  
Shailendra Singh, Sanjeev Kumar Bhalla, Jeetendra Singh, Shilpi Gupta, Balwinder Raj, N K Yadav  
CRC Press, Taylor & Francis, Aug. 2021
- 3. TFET-based Sensor Design for Health care Applications**  
Tulika Chawla, Mamta Khosla, Balwinder Raj  
CRC Press, Taylor & Francis, Aug. 2021

4. **Design and investigation of various Memristor Models for Neuromorphic**  
Shailendra Singh, Raghav Dwivedi, Jeetendra Singh, Balwinder Raj  
in Book "**Nanoscale Memristor Device and Circuits Design**",  
*Micro & Nano Technology Books, Elsevier, June 2022.*
5. **Spintronics for AI**  
Parul Sharma, Sandeep Singh Gill, Balwinder Raj  
in Book "**AI for big data based engineering applications from the Security perspectives**"  
*CRC Press, Taylor & Francis, December 2022*
6. **Emerging Non-volatile Memories for AI Applications**  
Mandeep Singh, Tarun Chaudhary, Balwinder Raj  
in Book "**AI for big data based engineering applications from the Security perspectives**"  
*CRC Press, Taylor & Francis, Dec 2022*
7. **Advancement of Neuromorphic Computing Systems with Memristors**  
Jeetendra Singh, Vikas Patel, Balwant Raj, Shailendra Singh and Balwinder Raj  
in Book "**Nanoscale Memristor Device and Circuits Design**"  
*Micro & Nano Technology Books, Elsevier, June 2022*
8. **3D Printing in Antenna Design**  
Atul M. Kulkarni, Garima Saini, Shyam S. Pattnaik, Ravindra A. Pardeshi  
in Book "**3D Printing of Sensors, Actuators, and Antennas for Low-Cost Product Manufacturing**"  
*CRC Press, eBook ISBN9781003194224*  
[doi.org/10.1201/9781003194224](https://doi.org/10.1201/9781003194224)
9. **Investigation of Impact of Mobile Phone Radiations on EEG/ECG and Modeling of Their Coherence Using ANN Ensemble**  
Suman Pattnaik, Balwinder S. Dhaliwal, Shyam S. Pattnaik  
in Book "**Artificial Intelligence and Sustainable Computing - Algorithms for Intelligent Systems**"  
*Springer, Singapore.*  
[https://doi.org/10.1007/978-981-19-1653-3\\_33](https://doi.org/10.1007/978-981-19-1653-3_33)
10. **Introduction to 3D Printing of Sensors, Actuators, and Antennas for Low-Cost Product Manufacturing**  
Jayant G. Joshi, Mandar P. Joshi, Balwinder S. Dhaliwal, Shyam S. Pattnaik  
In Book "**3D Printing of Sensors, Actuators, and Antennas for Low-Cost Product Manufacturing**"  
*CRC Press, Taylor & Francis Ltd., February 2023*
11. **3D printing of sensors, actuators, and antennas: Materials & Processes**  
Chahat Jain, Balwinder S. Dhaliwal, Rupinder Singh  
In Book "**3D Printing of Sensors, Actuators, and Antennas for Low-Cost Product Manufacturing**"  
*CRC Press, Taylor & Francis Ltd., February 2023*

**12. A Unique Multident Wide Band Antenna for TV White Space Communication Applications**

Ankit Meghwal, Garima Saini, Balwinder Singh  
In Book "**Algorithms for Intelligent Systems**"  
Springer Singapore, February 24, 2023  
[https://doi.org/10.1007/978-981-19-8742-7\\_60](https://doi.org/10.1007/978-981-19-8742-7_60)

**13. Precision Measurements in Healthcare Systems and Device**

Ravinder Agarwal, Amod Kumar and Sanjay Yadav  
In book "**Handbook of Metrology and Applications**"  
Springer, April 2023

**14. Assessment and Elimination of Surgeon Hand Tremor During Robotic Surgery**

Amod Kumar, Sanjeev Kumar, Akhlesh Kumar  
In book "**Handbook of Metrology and Applications**"  
Springer, April 2023