

DR. ROHIT TRIPATHI

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Profile

- Senior-level professional with experience in teaching and research.
- Explore the students for doing innovative live projects.
- Exposure in writing research projects, papers for journals and conferences.
- Team lead and player with unsurpassed analytical skills, energy-driven motivator & optimistic individual with and enthusiasm to accept and meet challenges in the competitive environment.

Academic Qualifications

Year (pass out)	Degree/ Certificate	Institute/School	Performance/Topic
2017	PhD (CGPA: 8.5)	Indian Institute of Technology Delhi (IIT Delhi) Hauz Khas, New Delhi-110016, Delhi, India	Energy and Exergy analysis of N photovoltaic thermal-compound parabolic concentrator (PVT- CPC) collector
2012	M. Tech	Harcourt Butler Technological Institute (H.B.T.I.), Kanpur, U. P., India (Now, HBTU)	1 st Division
2001-2005	B. Tech (Applied Electronics & Instrumentation)	Uttar Pradesh Technical University, (U.P.T.U.) Lucknow U. P., India	1 st Division

Teaching and Research Experience

- Working as **Assistant Professor** in **Department of Electronics Engineering**, at **J. C. Bose University of Science & Technology, YMCA Faridabad (Haryana State Government University)**, Haryana, India since April 2021.

- Worked as Associate Professor in School of Electrical, Electronics & Communication, Department of Electronics & Communication Engineering (ECE), Galgotias University, Greater Noida, U.P., since July 01, 2017 to April 2021.
B. Tech-ECE is accredited by NBA (National Board of Accreditation) from 2019-2022.
- Worked as full time PhD research scholar in Department of Energy and Engineering, Indian Institute of Technology Delhi (IIT Delhi) since Nov 2013 to June 2017.
- Worked as Assistant Professor in Department of Electronics & Communication Engineering (ECE), Rawal Institute of Engineering & Technology, Faridabad., since July 26, 2013 to Nov 2013.
- Worked as Assistant Professor in Department of Electronics & Communication Engineering (ECE), Pranveer Singh Institute of Technology (PSIT), Kanpur., since Sep, 2007 to June 2013.

Funded Projects

- PI of R& D Project grant of **22 lakhs**, titled “Smart Photovoltaic Thermal (PVT) Bench with charging station for EV’s” funded by **Haryana State Certificate in Information Technology (DST Haryana)** in 2024-25 for 3 years.
- PI of Seed Money Project, grant of **1.70 lakhs**, titled “IoT based Battery Management System for E-Vehicles”, funded by **J C Bose University of Science and Technology YMCA, Faridabad** in 2024-25 for 2 years.

Patents (13)

- International (02)

Two International Australian patents have been granted with Galgotias University's affiliations in 2020 & 2021.

Available on www.pericles.ipaustralia.gov.au/ols/auspat/quickSearch.do

1. TITLE: - ***A TECHNIQUE FOR TRAFFIC PREDICTION AND CONGESTION CONTROL IN IOT NETWORKS USING MACHINE LEARNING.***
Status: Granted on 11 Nov 2020. **application number-2020102637**
2. TITLE: - ***AN AUTONOMOUS BLOCK CHAIN BASED IOT NODE CLOUD COMMUNICATION FOR SMART LIGHTNING SYSTEM.***
Status: Granted on 22 jan2021. **application number-2020103018**

- National-Indian (11)

Submitted and published on www.ipindiaservices.gov.in/publicsearch

1. TITLE: - ***TOKENLESS VOTER VERIFICATION SYSTEM AND METHOD THEREOF.***
Role: First applicant & inventor.
Status: Published, now under examination. app. no.- 202011044601
2. TITLE: - ***SELF-CHECKOUT METHOD USING AN IOT BASED SHOPPING CART***
Role: First applicant & inventor.
Status: Published, now under examination. application no.- 202011050849
3. TITLE: - ***MULTIPLICATIVE INTERLEAVING WITH TREE ALGORITHM (MITA) INTERLEAVER FOR OFDM-IDMA***
Role: Inventor.
Status: Published, now under examination. application no.- 202011052331
4. TITLE: - ***ADVANCED HYBRID SOLAR COLLECTOR.***
Role: Inventor.
Status: Filed. application no.- 202011044377
5. TITLE: - ***SYSTEM AND METHOD OF CONTROLLING HOME APPLIANCES***
Role: First applicant & inventor.
Status: Published, now under examination. application no. – 202011054258
6. TITLE: - ***WEARABLE EYE MOVEMENT DETECTION DEVICE AND METHOD.***
Role: First applicant & inventor.
Status: Published, now under examination. application no. – 202111003126
7. TITLE: - ***DROWSINESS DETECTION SYSTEM AND METHOD IN CABIN.***
Role: First applicant and inventor. application no.- 202111007242
8. TITLE: - ***ADVANCED REMOTE BIOMETRIC ATTENDANCE SYSTEM FOR PREVENTING THE SPREAD OF COVID19 INFECTION***
Role: First applicant and inventor. application no.- 202111011435
9. TITLE: - ***FINGER VEIN RECOGNITION AND MONITORING SYSTEM THROUGH IOT.***
Role: Inventor. application no.- submitted for filing
10. Title: Design Patent: Electric Scooter for handicapped, Design no. 347867-001, Granted on dated on 13-08-2021, application no. 103347.
Role: First applicant and inventor
11. Title: Design Patent: Electric scooter, Design No. 383346-001, granted on 07-04-2023, application no. 139862.
Role: First applicant and inventor

Awards

- PhD Fellowship (JRF & SRF) by MHRD, Govt. of India during 2013-2017 at **Indian Institute of Technology Delhi (IIT Delhi), New Delhi, India.**
- **Second prize for Poster presentation-** Under the theme of green energy- In Young Scientist Conclave organized as a part of **1st India International Science Festival (IISF)**, Ministry of Science and Technology (DST, DBT and DSIR/CSIR) and

Ministry of Earth Sciences, during December 04-08, 2015 at **Indian Institute of Technology Delhi (IIT Delhi), New Delhi, India.**

- **MHRD Assistantship** to present research paper in “18th International conference on Energy, Environment and sustainability development (ICEESD 2016) at Paris France, Jan 21-22, 2016.
- Awarded **International Travel Scheme from SERB (DST)**, Govt. of India for presenting research paper in **International Conference on Applied Energy 2017 (ICAE2017) (Elsevier)**, at **Cardiff University, Cardiff, United Kingdom** from Aug 18-22, 2017.
- Awarded **International Travel Fellowship from CCSTDS, Chennai**, Govt. of India for presenting research paper in **2nd international conference on Energy research and Social Science (Elsevier)**, **Arizona State University, Arizona, Tempe, USA** from **May 28-31, 2019, but not availed.**
- Awarded **International Travel Fellowship (02 lacs with other expenses) from Galgotias University Research Committee**, for presenting research paper in **2nd international conference on Advance Nano Energy Materials (Elsevier)**, **University of Western Australia, Perth Australia** on Dec 04-06, 2019.

Consultancy Projects

- On “**PIR sensor and IoT based automation system**” with **one more expert to Lucky Star Estate India Pvt. Ltd. Nehru Place, New Delhi, 110019** in 2020, with 5 lacs amount.

PhD Supervision

- **Dr. Anisha** (Enrolment No. 18053010019) has completed PhD, thesis title, “**Urinary tract infection detection and prediction using machine learning and internet of things**”, under my **co-supervision**, from Galgotias University on 25 June 2025.

Responsibilities

- **Project quality assessment committee member** for UG and PG in department of Electronics Engineering from 2023 to till now at J C Bose Univ. of Sci. and Technology YMCA.
- **Training and Placement Coordinator** of department of Electronics Engineering from 2021 to till now at J C Bose Univ. of Sci. and Technology YMCA.
- **Coordinator of Institute Innovation Cell (IIC-6-7)** from 2023 to till now J C Bose Univ. of Sci. and Technology YMCA.
- Member of **Anti-Ragging Central Core Committee** from 2021 to till now J C Bose Univ. of Sci. and Technology YMCA.

- **Chief Co-In-charge of Centre of Excellence for Power Engineering and Clean Energy Integration** at Galgotias University since June 2020.
- **Co-In-charge of International Affairs** at Galgotias University since July 2020.
- **Research Coordinator**, School of Electrical, Electronics and Communication Engineering, at Galgotias University, since Jan 2019 to 07 Jan 2020.
- **Member of Core Research Team** at Galgotias University, since Jan 2020 to April 2021.
- Core Member of **NBA (National Board of Accreditation)** team for ECE in Galgotias University in 2019.
- Coordinator of **IPR (Intellectual property rights)**, School of Electrical, Electronics and Communication Engineering, at Galgotias University, since Jan 2020 onwards.
- **Project Based Learning Course Coordinator** of School of Electrical, Electronics and Communication Engineering, at Galgotias University since Jan 2018 to Dec 2019.
- **Examination Coordinator** of School of Electrical, Electronics and Communication Engineering, at Galgotias University since Oct 2018 to Jan 2019.

Reviewer of Reputed International Journals (SCI Indexed)

- Solar Energy (Elsevier, ISSN: 0038-092X. **IF: 4.68**).
- Science Bulletin (Elsevier, ISSN: 2095-9273. **IF: 4.0**).
- Renewable Energy (Elsevier, ISSN: 0960-1481. **IF: 4.9**).
- Energy Conversion and Management (Elsevier, ISSN: 0196-8904. **IF: 6.35**).
- Journal of Cleaner Production (Elsevier, ISSN: 0959-6526. **IF: 5.6**).
- Applied Thermal Engineering (Elsevier, ISSN: 1359-4311. **IF: 3.35**).
- International Journal of Energy Research (Wiley, ISSN: 1099-114X. **IF: 3.00**).
- IET Renewable Power Generation (IET, ISSN: 1752-1424. **IF: 2.64**).
- Energy Strategy Reviews (Elsevier, ISSN: 2211-467X. **IF: 1.9**).
- Journal of Renewable and Sustainable Energy (AIP), ISSN: 1941-7012. **IF: 1.14**).
- Energy (Elsevier, ISSN: 0360-5442. **IF: 4.96**)
- International Journal of Energy Research (John Wiley & Sons Ltd, ISSN: 1099-114X. **IF: 3.71**)
- International Journal of Ambient Energy (Elsevier, ISSN: 2211-467X. **IF: 1.9**).
- IEEE Access (IEEE, SCI index, **IF: 4.09**)
- Sustainable Energy Technologies and Assessments (Elsevier, ISSN: 2213-1388. **IF: 3.4**).

Invited Talk/Speaker

- “Modelling of duct based photovoltaic thermal (PVT) air collector” in International conference on Differential Equations and Control Problems-Modeling, Analysis and computations (ICDECP-19) during June 17-19, 2019 at **Indian Institute of Technology Mandi (IIT Mandi), H.P., India.**
- “Cost effectiveness of electrical energy from bifacial photovoltaic modules and their wide application” in **IEEE** sponsored and **Springer** supported International Conference **GUCON2019** on 27-28 Sep 2019 at Radisson-Blue and Galgotias University, Greater Noida.
- “Advanced application of bifacial PV module over mono facial PV module in urban areas” in National conference **SOLARIS2020** at **Shriram Murti Memorial University**, Lucknow on 07-09 Feb 2020.
- “Energy Conservation and Renewable Energy” in Five-day online Faculty Development Programme on conducted by **School of Engineering and Technology, IGNOU, NEW Delhi** on June 08-12, 2020
- “Photovoltaic usability and dependency in new era” in **IEEE Region Symposium (TRANSYP) 2020 held in 5-7 June 2020 in Dhaka, Bangladesh with virtual mode.**

Session Chair in International conferences

- For track of **PV and its application** in International conference **SOLARIS 2019**, held on 07-09 Feb 2019 at **Jamia Millia Islamia Central University, New Delhi, India.**
- For Track of **SD-1, in Renewable energy and power** in National Conference **SOLARIS 2020 at Shriram Murti Memorial University, Lucknow** on 07-09 Feb 2020.
- For Track of **FD-1, in Renewable energy and resources** in **International Conference on Electrical and Electronics Engineering, ICEEE2020** at National Power Training Institute (NPTI), Faridabad on 28-29 Feb 2020. www.iceee.in
- For Track of **TD-1, in Power and Energy Engineering** in **IEEE technically and financially sponsored** International Conference **GUCON2020** on 02-04 Oct 2020 in Virtual Mode through WebEx. www.gucon.in
- For Track of **SD-2, in Power and Energy Engineering** in **IEEE technically and financially sponsored** International Conference **ICCCA2020** on 30-31 Oct 2020 in Virtual Mode through WebEx. www.iceee.in
- Track of **SD-02 in Springer International Conference on Renewable Technologies in Engineering (ICRTE-2021)** on 15-16 April 2021 at Faculty of Engineering and Technology Manav Rachna International Institute of Research and Studies, Faridabad, Haryana. <https://manavrachna.edu.in/icrte2021>

- **Track of SD-01 in 8th IEEE International Conference on Signal Processing and Integrated Networks (SPIN-2021)** held on 26-27 August, 2021, through Virtual Mode at Amity University, Noida, India. <https://www.amity.edu/spin2021>
- **Track of IoT and Smart systems in 2nd IEEE International conference on advances in computation, communication and information Technology (ICAICCIT2024)** held on 28th 29th Nov 2024 at School of Engineering and Technology Manav Rachna International Institute of Research and Studies, Faridabad, Haryana. <https://icaiccit2024.vercel.app/>

Organized workshops/conferences

- Organized **IEEE sponsored and Springer** supported International Conference **GUCON2019** on 27-28 Sep 2019 at Radisson Blue, Greater Noida as a member of core organizing committee. www.gucon.in
- Technical Chair of **Springer** supported International Conference **ICEEE2020** on Feb 28-29, 2020 at National Power Training Institute (NPTI), Faridabad and Galgotias University, Greater Noida as a member of core organizing committee. www.iceee.in
- Organized **IEEE financial sponsored** International Conference **GUCON2020** on 02-04 Oct 2020, in virtual mode as a member of core organizing committee. www.gucon.in
- Track Chair and member of core organizing committee of **IEEE American Society** supported International Conference **ICCCA2020** on Oct 30-31, 2020 at Galgotias University, Greater Noida. <http://iccca.in/ICCCA2020/>
- Technical Chair and member of core organizing committee of **Springer** supported International conference on Advanced Computing and Intelligent Technologies (**ICACIT**) on March 20-21, 2021, online mode organized by Galgotias University and University of Di Siena, Italy as a member of core organizing committee. <http://www.icacit.in/>

Research (International Publications)

International Journals

1. **Rohit Tripathi**, G. N. Tiwari, I.M. Al-Helal, “Thermal modelling of N partially covered photovoltaic thermal (PVT)–Compound parabolic concentrator (CPC) collectors connected in series”, **Solar Energy**, 123 (2016) 174–184 (**Elsevier**). ISSN: 0038-092X. **Impact factor: 6.6. SCI.** www.sciencedirect.com.
2. **Rohit Tripathi**, G. N. Tiwari, Overall Energy, exergy and carbon credit Analysis of N partially covered Photovoltaic Thermal (PVT) concentrating collector connected in series. **Solar Energy 136 (2016) 260-267 (Elsevier)**. ISSN: 0038-092X. **Impact factor: 6.6. SCI.** www.sciencedirect.com
3. **Rohit Tripathi**, G. N. Tiwari, Energetic and exergetic analysis of N partially covered photovoltaic thermal -compound parabolic concentrator (PVT-CPC) collectors

connected in series. **Solar Energy** **137** (2016) 441-451 (Elsevier). ISSN: 0038-092X. **Impact factor: 6.6. SCI.** www.sciencedirect.com

4. **Rohit Tripathi**, G. N. Tiwari, Annual performance evaluation (energy and exergy) of fully covered concentrated photovoltaic thermal (PVT) water collector: An experimental validation. **Solar Energy** **146** (2017) 180-190 (Elsevier). ISSN: 0038-092X. **Impact factor: 6.6. SCI.** www.sciencedirect.com

5. **Rohit Tripathi**, G. N. Tiwari, Energy matrices evaluation and exergoeconomic analysis of series connected N partially covered (glass to glass PV module) concentrated -photovoltaic thermal (C-PVT) collector: at constant flow rate mode. **Energy conversion and management** **145** (2017) 353-370. (Elsevier). ISSN: 0196-8904. **Impact factor: 10.9. SCI.** www.sciencedirect.com

6. **Rohit Tripathi**, G. N. Tiwari, T. S. Bhatti, “**2-E (Energy-Exergy) for partially covered concentrated photovoltaic thermal (PVT) collector**”. **Energy Procedia** **142** (2017) 616-623. (Elsevier). ISSN: 1876-6102. SCOPUS Indexed. www.sciencedirect.com

7. Vineet Saini, **Rohit Tripathi**, G. N. Tiwari, I.M. Al-Helal. Electrical and thermal assessment of N partially covered PVT-compound parabolic concentrator collector connected in series, for different solar cell materials. **Applied Thermal Engineering** **128** (2018) 1611-1623. (Elsevier). ISSN: 1359-4311. **Impact factor: 6.8. SCI.** www.sciencedirect.com

8. **Rohit Tripathi**, G. N. Tiwari. Energy matrices, life cycle cost, carbon mitigation and credits of open-loop N concentrated photovoltaic thermal (CPVT) collector at cold climate in India: A comparative study. **Solar Energy** **186** (2019), 347-359 (Elsevier). ISSN: 0038-092X. **Impact factor: 6.6. SCI.** www.sciencedirect.com

9. Danish Ather Suman Madan, Manjushree Nayak, **Rohit Tripathi**, Ravi Kant, Sapna Singh Kshatri, Rituraj Jain. 2022 “Selection of Smart Manure Composition for Smart Farming Using Artificial Intelligence Technique” Journal of Food Quality, volume 2022, Article ID 4351825, pages 7. <https://doi.org/10.1155/2022/4351825>. Impact Factor= 2.9.

10. Harish Kumar, Yassine Aoudni, Geovanny Genaro Reivan Ortiz, Latika Jindal, Shahajan Miah, **Rohit Tripathi**, 2022. “Light Weighted CNN Model to Detect DDoS Attack over Distributed Scenario” Security and Communication Networks, volume 2022, Article ID 7585457, pages 10. <https://doi.org/10.1155/2022/7585457>. Impact factor= 2.03

11. Nagpal, A., Sabharwal, M., **Tripathi, R.** (2023). A hybrid feature selection approach for urinary tract infection detection and prediction in IoT-Fog environment. Multidisciplinary Science Journal, 6(6), 2024080. <https://doi.org/10.31893/multiscience.2024080>. Impact Factor=3.77

12. Nagpal, A., Sabharwal, M., & **Tripathi, R.** (2023). A novel ensemble machine learning framework for early-stage diabetes mellitus prediction. Multidisciplinary

13. Nagpal, A., Sabharwal, M., & **Tripathi, R.** (2023). A hybrid feature selection approach for urinary tract infection detection and prediction in IoT-Fog environment. Multidisciplinary Science Journal, 6(6), 2024080. <https://doi.org/10.31893/multiscience.2024080>. Impact Factor=3.77
14. S., Jadav, S. and **Tripathi, R.** (2023), "Recent development and challenges on design and fabrication of flexible substrate-based carbon monoxide gas sensor: a review", *Sensor Review*, Vol. 43 No. 2, pp. 108-124. <https://doi.org/10.1108/SR-09-2022-0339>.
15. Kumar, S., **Tripathi, R.** (2023). Detection of COVID-19 Using Machine Learning. In: Tistarelli, M., Dubey, S.R., Singh, S.K., Jiang, X. (eds) Computer Vision and Machine Intelligence. Lecture Notes in Networks and Systems, vol 586. Springer, Singapore. https://doi.org/10.1007/978-981-19-7867-8_13. Indexed in Scopus.
16. Danish Ather, Suman Madan, Manjushree Nayak, **Rohit Tripathi**, Ravi Kant, Sapna Singh Kshatri, Rituraj Jain, 2021, "Selection of Smart Manure Composition for Smart Farming Using Artificial Intelligence Technique" Journal of food quality-Artificial Intelligence in Food Quality Improvement, Volume 2022, Article ID 4351825, 7 pages. <https://doi.org/10.1155/2022/4351825>. Impact Factor=2.9
17. Singh, Chaitanya, **Tripathi, Rohit**, Walia, Ranjan, Chauhan, Deepika, Asokan, Anju, 2021. Blockchain and IOT integrated Smart City Architecture, Turkish Journal of Computer and Mathematics Education, Vol. 12, Iss. 9, (2021): 62-69. Impact Factor=0.21

International Conferences

18. **Rohit Tripathi**, Sumit Tiwari, "Exergy analysis and carbon credit earned from double slope active solar still under natural circulation mode" in International Conference "Energy Security, Global Warming and Sustainable Climate SOLARIS 2012" (ISBN:9789382332039) pp. 689-699 which was held on 08-09 February, 2012 at IIT-Banaras Hindu University (IIT-BHU), Varanasi, U. P., India.
19. **Rohit Tripathi**, Sumit Tiwari, G. N. Tiwari, "Energy analysis of fully covered (N) number of photovoltaic thermal-compound parabolic concentrator collectors connected in series" in international conference on Advanced and agile manufacturing systems (ISBN-9789385777035), p.p. 429-433, held on 28-29, December 2015 at KNIT Sultanpur, U.P., India.
20. Sumit Tiwari, **Rohit Tripathi**, G. N. Tiwari, "**Energy analysis of photovoltaic-thermal (PVT) greenhouse solar dryer**", in international conference on Advanced and agile manufacturing systems (ISBN-9789385777035), p.p. 434-437, held on 28-29, December 2015 at KNIT Sultanpur, U.P., India.
21. **Rohit Tripathi**, Sumit Tiwari, G. N. Tiwari, "Performance of partially covered N number of photovoltaic thermal (PVT)-Compound parabolic concentrator (CPC) collectors connected in series connected water heating system", 18th International

conference on Energy, Environment and sustainability development (ICEESD 2016) - eissn: 1307-6892 at Paris France, Jan 21-22, 2016, p.p. 1963-1968, 18 (1) Part XII.

22. Sumit Tiwari, **Rohit Tripathi**, G. N. Tiwari, “**Thermal Analysis of Photovoltaic Integrated Greenhouse Solar Dryer**”, 18th International conference on Energy, Environment and sustainability development (ICEESD 2016) - eissn:1307-6892 at Paris France, Jan 21-22, 2016, p.p. 1958-1962, 18 (1) Part XII.

23. **Rohit Tripathi**, Sumit Tiwari, G. N. Tiwari, “Energy analysis of partially covered number (N) of photovoltaic thermal-compound parabolic concentrator collectors connected in series at constant collection temperature mode” in IEEE International conference on Emerging trends in Electrical, Electronics and sustainable Energy systems (ICETEESES-16) (ISBN-9789385777318), p.p. 33-37, held on 11-12, march 2016 at KNIT Sultanpur, U.P., India. www.ieeeexplore.com

24. Sumit Tiwari, **Rohit Tripathi**, G. N. Tiwari, “Effect of packing factor of photovoltaic module on performance of photovoltaic thermal (PVT) greenhouse solar dryer” in IEEE International conference on Emerging trends in Electrical, Electronics and sustainable Energy systems (ICETEESES-16) (ISBN-9789385777318), p.p. 123-126, held on 11-12, march 2016 at KNIT Sultanpur, U.P., India. www.ieeeexplore.com

25. **Rohit Tripathi**, G. N. Tiwari, “Overall energy and exergy performance of partially covered N Photovoltaic thermal (PVT) -compound parabolic concentrator (CPC) collectors connected in series”. IEEE International conference on power electronics, intelligent control and energy systems held on 04-06 July 2016 at DTU Campus, New Delhi, India. www.ieeeexplore.com

26. **Rohit Tripathi**, Sumit Tiwari, G. N. Tiwari, “Energy performance of partially covered N of photovoltaic thermal-compound parabolic concentrator collector for cold climate condition” in 2nd IEEE International conference on innovative application of computational intelligence on power, energy and controls with their impact on humanity (CIPECH-16) (ISBN-9789386256140) held on 18-19, November 2016 at KIET Ghaziabad, U.P., India. www.ieeeexplore.com

27. Sumit Tiwari, **Rohit Tripathi**, G. N. Tiwari, “Energy analysis of photovoltaic thermal (PVT) Greenhouse under forced mode without load condition” in 2nd IEEE International Conference on innovative application of computational intelligence on power, energy and controls with their impact on humanity (CIPECH-16) (ISBN-9789386256140) held on 18-19, November 2016 at KIET Ghaziabad, U.P., India. www.ieeeexplore.com

28. **Rohit Tripathi**, G. N. Tiwari, “Annual energy, exergy and environmental benefits of N half covered concentrated photovoltaic thermal (CPVT) air collectors” in 1st Springer International conference on Emerging trends and advances in Electrical engineering and renewable energy (ETAEERE-16) (ISBN-9789352654848) held on 17-18, December 2016 at **Sikkim Manipal University (SMU), Sikkim, India**.

29. **Rohit Tripathi**, G. N. Tiwari, “Experimental validation study for an open loop fully covered concentrated photovoltaic thermal (PVT) water heater” in IEEE International conference on Intelligent Computing, Instrumentation and Control technologies-2017 (ICICICT-2017) (ISBN-9781509061020) held on 06-07 July, 2017 at **Vimal Jyoti Engineering College, Kannur, Kerala, India**. www.ieeeexplore.com

30. **Rohit Tripathi**, G. N. Tiwari, T. S. Bhatti, “2-E (Energy-Exergy) for partially covered concentrated photovoltaic thermal (PVT) collector” in International Conference on Applied Energy (Elsevier), held on 21-24 August 2017 at **Cardiff University, Cardiff, UK**. www.sciencedirect.com

31. **Rohit Tripathi**, Abhishek Tiwari, G. N. Tiwari, “Overall performance of N partially covered photovoltaic thermal-compound parabolic concentrator (PVT-CPC) collector

with different concentration ratio" in international conference on Springer Advances in Energy & Research 2017. It will be held on 12-14 December 2017 at **IIT Bombay, India.**

32. Abhishek Tiwari, **Rohit Tripathi**, G. N. Tiwari, "Improved Analytical Model for Electrical Efficiency of Semi-transparent Photovoltaic (PV) Module" in Springer International conference on Advances in Energy & Research 2017. It will be held on 12-14 December 2017 at **IIT Bombay, India.**
33. **Rohit Tripathi**, Rishabh Kaushik, Sukanya Sharma, Tushar Arora. Design of Eye-writer for ALS Patients through Eye-can. Accepted in IEEE International conference on computing, power and communication technologies 2018, which will be held on 28-29 Sep 2018 at GCET, G. Noida, India. www.ieeeexplore.com
34. **Rohit Tripathi**, Deepak Sharma, G. N. Tiwari. Comparison of electrical energy and power of PV cells/modules with different cells materials in clear sky day condition. In International Conference on Advances in Nanomaterials and Devices for Energy and Environment held on 27-29 Jan 2019, at **Atal Bihari Bajpai- Indian Institute of Information and Technology and Management (ABV-IIITM) Gwalior, M.P., India.** www.sciencedirect.com
35. **Rohit Tripathi**, Deepak Sharma, G. N. Tiwari. Electrical and overall energy evaluation of series connected N identical of concentrated photovoltaic thermal collector. In International Conference SOLARIS 2019, held on 07-09 Feb 2019 at **Jamia Millia Islamia, New Delhi, India.**
36. **Rohit Tripathi**, Deepak Sharma, Nitin K. Gupta, G. N. Tiwari, T. S. Bhatti, Experimental validation study for electrical, thermal and overall energy production through open low concentration ratio based photovoltaic hybrid collector. In International Conference on ICMET2019 held on 07-08 Nov 2019 at GCET, G. Noida, India. www.ieeeexplore.com
37. **Rohit Tripathi**, G. N. Tiwari, T. S. Bhatti. Effect of packing factor on electrical and overall energy generation through low concentrated photovoltaic thermal collector in composite climate condition. In International Conference ANEM 2019, held on 04-06, Dec 2019 at **University of Western Australia, Perth, Australia.**
38. **Rohit Tripathi**, Deepak Sharma, Nitin K. Gupta, T. S. Bhatti, G. N. Tiwari. Evaluation of annual electrical energy through semitransparent (glass to glass) and opaque photovoltaic module in clear sky condition at composite climate: A comparative study. In ICAER2019, held on 10-12 Dec 2019 at **IIT Bombay, India.**
39. **Rohit Tripathi**, G. N. Tiwari, T. S. Bhatti. Electrical energy and power generation from three different photovoltaic module technology in composite climate condition: A comparative study. In International Conference on Electrical and Electronics Engineering, ICEEE2020, held on Feb 28-29, 2020 at **National Power Training Institute (NPTI) Central Govt. of India, Faridabad.** www.ieeeexplore.com
40. **Rohit Tripathi**, Sanjay Agrawal, Rashmi Agrawal, Devender Singh, R. N. Shaw "Synchronization, Fault Detection of PV Array and Grid with MPPT Techniques Using MATLAB/Simulink. In International Conference on Electrical and Electronics Engineering, ICEEE2020, held on Feb 28-29, 2020 at **National Power Training Institute (NPTI) Central Govt. of India, Faridabad.** www.ieeeexplore.com
41. **Rohit Tripathi**, Nitin, Honey Pratap, "Intelligent car cabin safety system through IoT application" In **Springer International conference on Congress on Intelligent Systems-CIS 2020 which was held on 5-7 Sep 2020 on virtual mode.**
42. **Rohit Tripathi**, Sanjay Agrawal, R. N. Shaw, "Impact of Number of Collector on Energy Profile from Concentrated Fully Covered Hybrid Photovoltaic (CHPV) System" In **IEEE 5th International Conference on Computing Communication and**

Automation (ICCCA2020), pp. 802-806, 2020 held on 30-31 Oct 2020 in virtual mode. www.ieeeexplore.com

43. **Rohit Tripathi**, M. K. Shukla. Review on IoT enabled photovoltaic power plant control and monitoring. In **Springer** International Conference on Electrical and Electronics Engineering, ICEEE2021, held on Jan 02-03, 2021 in virtual mode.
44. **Rohit Tripathi**, S. K. Tripathi. Graphene Properties and its Utility for High Frequency Antennas. In **Springer** International Conference on Electrical and Electronics Engineering, ICEEE2021, held on Jan 02-03, 2021 in virtual mode. www.ieeeexplore.com
45. **Rohit Tripathi** and Manoj K Shukla, Yogesh Kumar "Intelligent physical access control system through three stage verification using IoT". In **Springer** International Conference on Electrical and Electronics Engineering, ICEEE2021, held on Jan 02-03, 2021 in virtual mode.
46. **R. Tripathi**, "Dust effect on energy profile production from hybrid photovoltaic (H-PV) collector," *2021 IEEE 18th India Council International Conference (INDICON)*, Guwahati, India, 2021, pp. 1-5, doi: 10.1109/INDICON52576.2021.9691579. www.ieeeexplore.com
47. Shweta, S. Jadav and **R. Tripathi**, "Criterion for Capacitive Interdigitated Electrode for Gas Sensing Applications," *2023 International Conference for Advancement in Technology (ICONAT)*, Goa, India, 2023, pp. 1-4, doi: 10.1109/ICONAT57137.2023.10080414. www.ieeeexplore.com
48. Aryan, R. Ramaprabha, **Rohit Tripathi**, Rashmi Agarwal, "Efficient performance testing for PV array sets using capacitor charging method", *Materials Today: Proceedings*, 2023, ISSN 2214-7853. <https://doi.org/10.1016/j.matpr.2023.04.595>
49. Anisha, M. Sabharwal and **R. Tripathi**, 2024 "IoT-Enhanced Machine Learning Approach for Early Detection and Prediction of Urinary Tract Infection," 2nd International Conference on Advances in Computation, Communication and Information Technology (ICAICCIT), Faridabad, India, 2024, pp. 1019-1024, doi: 10.1109/ICAICCIT64383.2024.10912138. Indexed in Scopus.

Book Chapters

50. **Chapter-12-Tripathi Rohit**, Tiwari G.N. (2018) "Annual Energy, Exergy, and Environmental Benefits of N Half Covered Concentrated Photovoltaic Thermal (CPVT) Air Collectors". In: SenGupta S., Zobaa A., Sherpa K., Bhoi A. (eds) **Advances in Smart Grid and Renewable Energy**. Lecture Notes in Electrical Engineering, vol 435, pp. 113-127, Springer, Singapore
https://link.springer.com/chapter/10.1007%2F978-981-10-4286-7_12
51. **Chapter-40-Tripathi Rohit**, Sharma Rakhi., Tiwari G.N. (2020) "Experimental study on PV degradation losses assessment of stand-alone photovoltaic (SAPV) array in field: A new simplified comparative analytical approach". In: Bhoi A., Sherpa K., Kalam A., Chae GS. (eds) **Advances in Greener Energy Technologies**. In book series-Green Energy and Technology, pp685-706Springer, Singapore.
https://link.springer.com/chapter/10.1007/978-981-15-4246-6_40
52. **Chapter-58-Tripathi Rohit**, Sharma D., Gupta N.K., Tiwari G.N., Bhatti T.S., Dwivedi V.K. (2020) "Experimental Validation for Electrical, Thermal and Overall Energy Generation from Open Low Concentration Ratio-Based Photovoltaic Hybrid Collector". In: Yadav S., Singh D., Arora P., Kumar H. (eds)

Proceedings of International Conference in Mechanical and Energy Technology. **Smart Innovation, Systems and Technologies**, vol 174, pp 623-633, Springer, Singapore. https://link.springer.com/chapter/10.1007/978-981-15-2647-3_58

53. **Chapter-11-Tripathi Rohit**, Tiwari A., Tiwari G.N. (2020) “Overall Performance of N Partially Covered Photovoltaic Thermal-Compound Parabolic Concentrator (PVT-CPC) Collector with Different Concentration Ratio”. In: Singh S., Ramadesigan V. (eds) **Advances in Energy Research, Vol. 2**, pp 113-122, Springer Proceedings in Energy. Springer, Singapore. https://link.springer.com/chapter/10.1007/978-981-15-2662-6_11
54. **Chapter-10-Tiwal A., Tripathi Rohit**, Tiwari G.N. (2020) “Improved Analytical Model for Electrical Efficiency of Semitransparent Photovoltaic (PV) Module”. In: Singh S., Ramadesigan V. (eds) **Advances in Energy Research, Vol. 1**, pp 89-99, Springer Proceedings in Energy. Springer, Singapore. https://link.springer.com/chapter/10.1007/978-981-15-2666-4_10
55. **Chapter-145- Rohit Tripathi**, Nitin K Gupta, Deepak Sharma, G. N. Tiwari, T. S. Bhatti “Evaluation of annual electrical energy through semitransparent (glass to glass) and opaque photovoltaic module in clear sky condition at composite climate: A comparative study” In **Proceedings of the 7th International Conference on Advances in Energy Research**, book series- Springer Proceedings in Energy. Springer, Singapore. https://link.springer.com-443.webvpn.jnu.edu.cn/chapter/10.1007%2F978-981-15-5955-6_145
56. **Chapter-18- Rohit Tripathi**, G. N. Tiwari, T. S. Bhatti. Electrical energy and power generation from three different photovoltaic module technology in composite climate condition: A comparative study. In **Innovations in Electrical and Electronic Engineering**. Springer: [Lecture Notes in Electrical Engineering](https://link.springer.com/chapter/10.1007/978-981-15-4692-1_18) (LNEEE), Springer, Singapore. https://link.springer.com/chapter/10.1007/978-981-15-4692-1_18
57. **Chapter-21-Rohit Tripathi**, Sanjay Agrawal, Rashmi Agrawal, Devender Singh, R. N. Shaw “Synchronization, Fault Detection of PV Array and Grid with MPPT Techniques Using MATLAB/Simulink” In **Innovations in Electrical and Electronic Engineering**. Springer: [Lecture Notes in Electrical Engineering](https://link.springer.com/chapter/10.1007/978-981-15-4692-1_21) (LNEEE), Springer, Singapore. https://link.springer.com/chapter/10.1007/978-981-15-4692-1_21
58. **Chapter-27-Rohit Tripathi**, Adwait Parth, Manish, Manoj K. Shukla “Modelling and designing of E-bike for local use” **Book Title: Electric Vehicles- Modern Technologies and Trends** PP. 199-212, Springer Book Series: **Green Energy and Technology (ISSN: 1865-3529)**. <https://www.springer.com/gp/book/9789811592508>
59. **Chapter-23-Rohit Tripathi**, Nitin, Honey Pratap, Manoj K. Shukla, “Intelligent car cabin safety system through IoT application” *Springer Book Series: ‘Advances in Intelligent Systems and Computing*. <https://www.springer.com/series/11156>
60. **Chapter-22-Rohit Tripathi**, S. K. Tripathi, *Graphene Properties and its Utility for High Frequency Antennas*. In **Innovations in Electrical and Electronic**

Engineering. Springer: [Lecture Notes in Electrical Engineering](#) (LNEEE), Springer, Singapore. https://link.springer.com/chapter/10.1007/978-981-15-4692-1_21

61. **Chapter-29-Rohit Tripathi**, Manoj K. Shukla, Yogesh Kumar. *Intelligent physical access control system through three stage verification using IoT*. In **Innovations in Electrical and Electronic Engineering**. Springer: [Lecture Notes in Electrical Engineering](#) (LNEEE), Springer, Singapore. https://link.springer.com/chapter/10.1007/978-981-15-4692-1_21
62. **Chapter 12**-Nassa V. K., Sharma M., Duggal S., **Tripathi R.**, Shyry S. P., Dhanraj J. A., Jolly A., 2025 “Securing IoT Devices for Bio-Medical Image Sharing” chapter-12, book Advanced Secure Transmission of Telemedicine-Based Bio-Medical Images, IGI Global Scientific Publishing, pp. 251-272. DOI: 10.4018/979-8-3693-9821-0.ch012.

Book Publication

1. **Rohit Tripathi**, 2024, “[IoT and Machine Learning-A Comprehensive Guide for Smart Systems](#)” 1st edition, Academic Guru Publishing House (AGPH). ISBN-13: 978-8198315540.<https://www.amazon.in/Machine-Learning-Comprehensive-Guide-Systems/dp/B0F544HFG6>.

Editorial Member

- Acting as Editorial Member of International recognized “**International Journal of Sustainable and Green Energy (IJSGE)**, ISSN: 2575-1549” by **SciencePG**, New York, U.S.A. <http://www.sciencepublishinggroup.com/j/ijsg>
- Acting as Editorial Member of International recognized “**Journal of Management Science & Engineering Research**, ISSN: 2630-4953” which is operated from **Singapore**. <http://ojs.bilpublishing.com/index.php/jmser/about/editorialTeam>

Quality Improvement Program (QIPs)

- Attended “**Advances in Solar Energy Technologies**” organized by Centre for Energy Studies, IIT Delhi from Dec. 09-15, 2014 which is sponsored by **AICTE Govt. of India**.

Faculty Development Program (FDPs)

- Completed **AICTE Training and Learning (ATAL)** Academy **Online** FDP on “Workshop on Wearable Devices (WWD-2020)” organized by Department of Electronics and Communication Engineering, NIT Jamshedpur from Dec 14-18, 2020.
- Completed **AICTE Training and Learning (ATAL)** Academy **Online** FDP on “**Electric Vehicles**” from Nov 30-Dec 04, 2020 at **University College of Engineering Villupuram**.

- Completed **AICTE Training and Learning (ATAL) Academy Online FDP on "Internet of Things (IoT)"** from Oct 12-16 2020 at **Indian Institute of Information Technology Kota**.
- Attended FDP on **“Teaching and Learning in Engineering”** in Feb-March 2019 conducted by **NPTEL-AICTE, IISc Bangalore, Karnataka, India**.

Workshops

- Attended **workshop on “HIGH IMPACT TEACHING SKILL”** conducted by **“Wipro Technology”** from June 22-30, 2010 at Kanpur Institute of Technology (KIT) Kanpur, U.P., India.
- Attended **workshop on “Faculty Effectiveness to Ensure Industry-Academia Connect”** conducted by **NHRD, Lucknow chapter** on 18 December 2010, at PSIT, Kanpur, U.P., India.
- Attended **AICTE recognized Short Term Course** on **“Projects on Electrical and Electronics Engineering”** from 06-10 August 2018 at NITTTR Chandigarh, Punjab, India.
- Attended **Ministry of New and Energy Renewable (MNRE)** sponsored one-week workshop on **“Energy Efficiency for Solar PV systems”** at **CSIR-NPL campus New Delhi, India** on 3-7 Dec 2018.
- Attended **Indo-Muscat One-week Virtual Workshop on Research Writing skills**, conducted by Galgotias University, G. Noida, India on May 26-30, 2020.
- Attended **AICTE and ATAL approved 5 days’ workshop on “Internet of things based Applied Engineering in Agriculture”** in online mode on 12-16 Oct 2020.

International Recognition for Presentation of Research

- **Presented two research papers** in International conference on Energy, Environment and sustainability development (ICEESD 2016) on 21-22 Jan, in **Paris, France**.
- **Presented a research paper** in International conference on Applied Energy ICAE-2017 on 21-24 August in **Cardiff University, Cardiff, Wales, United Kingdom (UK)**. I was also awarded as **best paper presentation award in ICAE-2017**.
- **Presented a research paper** in International conference ANEM2019 on 04-06 Dec 2019 in **University of Western Australia (UWA), Perth, Australia**.

Online Research Profile

Scopus Profile: <https://www.scopus.com/authid/detail.uri?authorId=56999810500>

Web of Science: <https://publons.com/researcher/1334212/dr-rohit-tripathi/>

Google Scholar: https://scholar.google.co.in/citations?user=ZH_5sz0AAAAJ&hl=en

Research Gate: https://www.researchgate.net/profile/Dr_Tripathi8

References

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