



Dr Kushal Roy

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Address: Purba Medinipur ,West Bengal,India - 721657

Expertise

Telecommunications

Electronics and Communication Engineering

Work experience

1. Haldia Institute of Technology 2006 — Present

Assistant Professor
Purba Medinipur

Education

1. Ph.D - 2023

Brainware University

2. M.Phil - 2004

I.I.T ROORKEE

Honours and Awards

1. Gold Medal - 2005

I.I.T Roorkee

2. AIR 1 - 2003

Roorkee University PGSR Entrance exam

Research Project

Development, Study and analysis of pyroelectric sensors with base material PZT manufactured by Sol-Gel technology

Role: Principal Investigator
Year 2007, Amount 522000

Membership In Professional Bodies

1. I.E.I INDIA, 2018
Member

Membership In Committees

Patent

1. Sensor based intelligent wearable device to monitor blood glucose levels of a diabetes patient and generate insulin using artificial pancreas

Inventor(s): Intekhab Hussain, Assignee:

Published: 2021-12-10

2. AI BASED HEALTH CARE SYSTEM USING CLOUD COMPUTING IN SMART CITIES

Inventor(s): Mr. Dibyendu Chowdhury, Dr. Akula Suneetha, Mrs. G. L. Narasamba Vanguri, Mrs. Juvvala Sailaja, Dr. J. Udhayakumar, Mrs. D. Gowthami, Prof. Dr. Yegnanarayanan Venkataraman, Dr.

Mohammed Asef Iqbal, Dr. D. Swamydoss, Mr. Kushal Roy, Mr. Vasamsetti Srinivas, Dr. M. Lilly Florence, Mr. J Logeshwaran, Dr. V. Kannan, Assignee:
Published: 2023-03-17

3. **IOT ENABLED RFID TAGGED KEY DEVICE FOR CHECH-IN IN HOTEL**

Inventor(s): Dr. Kushal Roy and others, Assignee: Dr. Kushal Roy and others
Published: 0000-00-00

Publication

1. **Laser diode to single-mode graded index fiber coupling via cylindrical microlens on the fiber tip: evaluation of coupling efficiency by ABCD matrix formalism**

Kushal Roy ., Angshuman Majumdar ., Shubhendu Maiti ., Sankar Gangopadhyay .,
Journal of Optical Communications, Volume 44, Year 2023, Pages S723-S738

2. **A Simple but Accurate Mathematical Formalism for Prediction of the Far Field Pattern of First Higher Order (LP11) Mode in Kerr Type Nonlinear Step Index Optical Fiber**

Kushal Roy ., Angshuman Majumdar ., Sankar Gangopadhyay .,
Lecture Notes in Electrical Engineering, Volume 851, Year 2022, Pages 169-178

3. **Few Prediction Techniques for Earthquake events and their Analysis: A Brief Insight**

Tilak Mukherjee ., Kushal Roy .,
Journal of Electronics and Communication Systems, Volume 7, Year 2022, Pages

4. **An accurate but simple method for estimation of the influence of kerr nonlinearity on the far field pattern of LP11mode in dispersion-shifted and dispersion-flattened fibers**

Kushal Roy ., Angshuman Majumdar ., Sankar Gangopadhyay .,
Journal of Optical Communications, Volume , Year 2022

5. **A Simple but Accurate Mathematical Formalism for prediction of the Far Field Pattern of First Higher Order LP11 Mode in Kerr Type Nonlinear Step Index Optical Fiber**

Kushal Roy, Angshuman Majumdar, Sankar Gangopadhyay
LNEE Springer Germany, Volume , Year 2022, Pages 169-178

6. **A Novel Optimized Nanoceramic Thermal Sensor with La Modifications for Body Temperature and Fluctuation Measurements**

Kushal Roy ., Ritesh Khanna .,
Lecture Notes in Electrical Engineering, Volume 602, Year 2020, Pages 369-375

7. **Review of Single-Mode Fiber-Based Polarization-Sensitive OCT**

8. **A Simple but Accurate Method for Estimation of the Effect of Kerr Nonlinearity on Confinement and Excitation of the Fundamental Mode in Single Mode Graded Index Fiber**

Kushal Roy ., Angshuman Majumdar ., Sankar Gangopadhyay .,
Optik, Volume 216, Year 2020
9. **Far Field Profile Estimation in Mono Mode Step Index Optical Fiber with Kerr type Nonlinearity by a Simple Technique**

Kushal Roy ., Angshuman Majumdar ., Sankar Gangopadhyay .,
Proceedings of 2nd International Conference on VLSI Device, Circuit and System, VLSI DCS 2020, Volume , Year 2020
10. **A Novel, Optimized Nano Ceramic Thermal Sensor with La modifications for Body Temperature and Fluctuation Measurements**

Kushal Roy
Springer LNEE series, Volume , Year 2019, Pages
11. **Lead Zirconium Titanate Nano Ceramic Thin Films and Sensors- For Industrial Applications**

Kushal Roy, Shamba Chatterjee, Avisankar Roy
Lead Zirconium Titanate Nano Ceramic Thin Films and Sensors- For Industrial Applications, Volume , Year 2017, Pages
12. **Fabrication and structural analysis of reconfigurable thermal sensors using nano ceramic material PZT for wide range industrial applications**

Kushal Roy, Avisankar Roy, Dibyendu Chowdhury
International Journal of Innovative and Emerging Research in Engineering (IJIERE), Volume 4(1), Year 2017, Pages 165-168
13. **Parametric Study and Analysis of Sol-Gel Derived [La/Va] Mg doped Composite PZT Nano Ceramic Material for Electronic Applications**

Kushal Roy, Avisankar Roy, Surajit Mukherjee, Tirthadip Sinha, Dibyendu Chowdhury, Samba Chatterjee
International Research Journal of Engineering and Technology (IRJET), Volume 3(4), Year 2016, Pages 771-773
14. **Design and analysis of microwave stepped impedance low pass filter for Bluetooth application**

Das, A.;Roy, A.;Roy, K.;Bhattacharyya, A.;Chowdhury, D.;Paul, S.
Proceedings of 2015 IEEE International Conference on Electrical, Computer and Communication Technologies, ICECCT 2015, Volume , Year 2015
15. **Design and Analysis of Microwave Stepped Impedance Low Pass Filter for Bluetooth Applications**

Kushal Roy
IEEE Xplore, Volume , Year 2015, Pages 1516-1518
16. **J2ME based mobile camera controller**

Kushal Roy
J2ME based mobile camera controller, Volume , Year 2015, Pages

17. **Fabrication and Parametric Analysis of Thermal Sensing Dielectric PZT Thick Film Nano Ceramic Device Developed by SOL GEL Technique**

Kushal Roy
Journal of Physics: Research and Reviews , Volume 4(1), Year 2015, Pages 31-37

18. **Advance Nano Ceramic PZT Sensors**

Kushal Roy, Avisankar Roy and Avishek Das
Advance Nano Ceramic PZT Sensors, Volume , Year 2014, Pages

19. **Advance Optical Fibre Communication**

Kushal Roy
Advance Optical Fibre Communication, Volume , Year 2011, Pages

20. **Broadband integrated services over proposed open CPE architecture**

Kushal Roy .,
Journal of Emerging Technologies in Web Intelligence, Volume 2, Year 2010, Pages 106-109

21. **Max-packet generation process for removing skew in network multimedia communication - A mathematical model**

S. Kandar ., K. Roy ., M. Barman ., C. T. Bhunia ., A. H. Siddiqi ., M. Brokate ., A. K. Gupta .,
AIP Conference Proceedings, Volume 1146, Year 2009, Pages 434-440

22. **Study and Analysis of Internal Friction Background in PZT nanoceramics obtained by Sol- Gel Technology**

Kushal Roy
NATO-META-08 , Volume , Year 2008, Pages

23. **Effect of Variable MgO doping on Structural, Electrical and Thermal properties of PZT $\text{Pb}[\text{Zr}_{0.7}\text{Ti}_{0.3}]\text{O}_3$ nano ceramics derived by Sol-Gel Technology, to be used as Dielectric Material for Temperature Sensitive Variable Capacitors**

Kushal Roy
IEEE, Volume , Year 2007, Pages 155-158

24. **Effect of Variable MgO and Fe_2O_3 doping on Structural, Electrical and Thermal properties of PZT ($\text{PbZr}_{0.7}\text{Ti}_{0.3}\text{O}_3$) nano ceramics derived by Sol-Gel Technology**

Kushal Roy
Proceedings of Metamaterials-2007, University ROMA TRE ROME, ITALY, Volume , Year 2007, Pages 307-310

