

SCHOOL OF STUDIES IN ELECTRONICS & PHOTONICS



(Funded Under UGC Under Innovative Program)
Pt. Ravishankar Shukla University, Raipur (C.G.)

SHILALEKH

2016-17



Established in 1994

About Us

The Department provides an unrivalled education in Electronics and photonics. The department has vibrant atmosphere with a combination of strong academic and research activities. Both compliment each other and the students at all levels under the able guidance of the faculty members maintain this brilliant combination and help the Institute to reach the zenith of knowledge and innovation.

Department came in to existence in the year 1994. It was shifted to new building in the year 1995 from Physics Department building. In the last 22 years of existence , number of students passed out are 900 & honored that our students are recruited in –DEITY Govt. of India CAT (Center for Advance Technology, Indore), CSIR ; IT Fields as System & Network Engg.; Railways , Indian & Overseas Banks ; Govt. Services through UPSC , PSC , SSB etc.; Private and Public Sectors ; Academic Field.

The teaching in the department is closely coupled with the research activities of the department. The teaching program contains a proper blend of basic concepts and advances in technology.

Vision

To become a nationally and internationally leading institution of higher learning, building upon the culture and the values of universal science and contemporary education, and a centre of research and education generating the knowledge and the technologies which lay the groundwork in shaping the future in the field of electronics and photonics.

Mission

Our mission is to prepare Competent Scientists imbued with spirit of Professionalism and Responsible Citizenship in a Competitive Global Environment.

Reasons why aspiring students should opt for M.Sc. in Electronics

M.Sc. in Electronics can be opted as a highly preferred discipline due to a lot of career opportunities for skillful candidates in both government and non-government institutions/organizations. The candidates of M.Sc. Electronics can find massive job opportunities in any of the well-reputed companies operating in planning, design, program, and repair electronics, including VLSI (Very Large Scale Integration) designing, which has become one of the most happening fields of Electronics.

M tech (Programme) aims to provide advanced training in the interdisciplinary area of optoelectronics, Fiber optics, optical networks, and laser technology, it also emphasizes on practical application of photonics and provide an educational experience relevant to students future career in the photonics based firm.











Career Prospects in Public Sector – Government sector offers secure and steady employment opportunities for expert professionals in Electronics. The different government organizations operating in Electronics field include – Indian Railway, ONGC, NEERI, Nationalized Banks, IGCAR, IAF, DRDO , CSIR, CEERI, BSNL BHEL, BEL, BARC etc.

Vast opportunities are now emerging in Education sector as well, both in teaching and research fields. State & Central governments are going to heavily recruit in their institutions. Postgraduates in Electronics can work as teachers in upper primary school classes.


COURSES OFFERED

| Course | No. of Seat | Year of Starting |
|--|-------------|------------------|
| M.Sc in Electronics | 20 | 1994 |
| M. Tech in Optoelectronics & Laser Technology (AICTE affiliated) Inter Disciplinary Nature | 22 | 2008 |
| M. Phil in Electronics | 10 | 2007 |
| Ph. D. Programme | 12 | 1994 |
| B.Voc (Bachelars in Vocational Education) in Renewable Energy and Technology Management Inter Disciplinary Nature | 50 | 2015 |

FACULTY

| Photos | Name | Qualification | Designation | Specialization | No. Years of Experience | PhD Produced |
|--|-----------------------|---|---------------------------|---|-------------------------|----------------|
|  | Dr. Sanjay Tiwari | M.Sc., M.Phil. Ph.D., M.Sc.(IT), AMIETE | Professor | Computational Condensed Matter Physics, Design, Simulation & Fabrication of Solar Cells, LEDs Computational Electronics | 29 Years | 12 |
|  | Dr. Kavita Thakur | BE, ME, Ph. D | Professor & Head | Speech, Image signal Processing and controls | 22 years | 7 |
|  | Mr. Anil Verma | M.Sc. in Electronics, UGC NET | Contract Asstt. Professor | Electronics | 02 Years | Pursuing Ph.D. |
|  | Ms. Praneeta Tamboli | B. E., M. Tec., UGC NET | Contract Asstt. Professor | Electronics & Telecommunicaiton, Optoelectronics and Laser Technology | — | — |
|  | Mr. Praveen Kr. Verma | B. E., M. Tech., UGC NET | Contract Asstt. Professor | Electronics & Telecommunicaiton, Optoelectronics | — | — |
|  | Mr. Naman Shukla | M. Tech, M.Sc. in Electronics UGC NET | Guest Faculty | Opto Electronics & Laser Technology | 04 Years | — |
|  | Mr. Javed Akram | M.Sc. in Electronics, UGC NET | Guest Faculty | Electronics | — | — |
|  | Ms. Arjeeta Mishra | M.Sc. in Electronics | Guest Faculty | Electronics | — | — |
|  | Mrs. Swagota Bera | M. Sc. in Electronics, M. Tech | Guest Faculty | Electronics | — | — |
|  | Mr. Tarun Sarkar | B.E., M. Tech. | Guest Faculty | Electronics | — | — |

Superannuated Faculty

| | | | | |
|--|--------------------------|-----------------------------|-------------------------------------|---------------|
|  | Dr. Harsh Vardhan Tiwari | M.Sc., Ph.D. IISc Bangalore | Former Professor & Head (1994-2006) | Ferroelectric |
| | (Late) Dr. G. K. Tiwari | M. Sc. Ph. D | Associate Professor (1994-2003) | Ferroelectric |

ADMINISTRATIVE STAFF

| Name | Designation | Qualification | Name | Designation | Qualification | Name | Designation |
|---------------------|----------------|---------------------------|-------------------------|---------------------|---------------|------------------|-------------|
| Mr. Surendra Singh | Lab Technician | B. E. | Mr. Anand Prakash Tigga | Technician Grade- I | 12th, ITI | Mr. Pawan Nishad | Peon |
| Ms. Poonam Sakarkar | LDC | M. Sc. (IT), B. Ed. PGDCA | Mr. Ramadas Banjare | Lab Attendant | 12th | Ms. Veena Deep | Sweeper |

Project (Major/Minor)

Major Projects

| S. No. | PI/ Co PI | Title of Project | Letter No. | Funding Agency | Funding Type | Funding Amt (INR) | Period |
|--------|-------------------------|--|--|---|--------------|-------------------|---------|
| 1 | Dr. SANJAY TIWARI | Optical and Electrical modeling of Thin Film Organic Solar Cells for efficient solar Spectrum harvesting | DRDO REF ERIP/ER/1203087/M/01 /1495 Dated: 18th Nov 2013 | Defence Research Development Organization New Delhi | Individual | 26.10 Lacs | 2014-17 |
| 2 | Co PI Dr. SANJAY TIWARI | Development of Highly Efficient CdTe/CdS Tandem Multijunction Photovoltaic System Through Optimization of Various Components | DST <u>EMR/2017/00043115</u> -Jun-2017 | Science & Engineering Research Board (SERB) | Individual | 29 Lacs | 2017-19 |

Minor Projects

| S. No. | PI/ Co PI | Title of Project | Letter No. | Funding Agency | Funding Type | Funding Amt (INR) | Period |
|--------|---|--|--|---|--------------|---|-----------------|
| 1 | Dr. Kavita Thakur | Development and Implementation of software based automatic heart monitoring system through speech signal analysis. | Vide Letter No.- 72/CCOST/MRP/2016, Dated- 3/04/2016 | CCOST, Raipur | Individual | 4.89 Lacs | April 2016-2018 |
| 2 | Dr. Sanjay Tiwari (Research Scholar nominated Anil Verma) | Simulation, Fabrication and characterization of BHJ Inverted Organic Photovoltaic Cells | | Indo Nano User Program, sponsored by DITY, Ministry of Communication and Information Technology, Govt of India sanctioned on 05.07.2016 | Individual | Covered Fabrication, Material, Characterisation travel and Accommodation cost for self or research scholar nominated. | July 2016-2018 |

Conference Organized by Institute

| S. No. | Author/Convenor | Title | Publisher/Organizer | Year |
|--------|------------------|--|---|--|
| 01 | Dr Kavita Thakur | "National level ARDUINO workshop cum training | School of Studies in Electronics and Photonics of Pt. Ravishankar Shukla University, Raipur and Indeyes Infotech PVT. LTD. New Delhi. | 21-23 March, 2017 |
| 02 | Dr Kavita Thakur | 3-days National Conference on Signal Processing, Sustainable Energy Materials and Astronomy and Astrophysics (NSSEMA). | School of Studies in Electronics & Photonics and School of Studies in Physics and Astrophysics and Luminescence Society of India | 28-30 March, 2017 |
| 03 | Dr Kavita Thakur | Two Days Workshop on EM-BEDDED SYSTEM'17 | S.O.S in Electronics and Photonics, S.O.S. in Computer Science & IT & IndEyes Infotech Pvt. Ltd. India | 15-16 February 2017 |
| 04 | Dr.Sanjay Tiwari | National workshop on "Entrepreneurships in Renewable Energy Technologies for Chhattisgarh Tribal" | Renewable Energy Technology & Management Centre Pt. Ravishankar Shukla University, Raipur with CREDA, USIEF | 19 th – 25 th September 2016 |
| 05 | Dr.Sanjay Tiwari | Six Days Training Program for Skill Development On Solar PV Installer | Renewable Energy Technology & Management Centre Pt. Ravishankar Shukla University, Raipur | 20-25 March 2017 |
| 06 | Dr.Sanjay Tiwari | Seminar on Public Perceptions about Atomic Energy-Myths vs Realities | Renewable Energy Technology & Management Centre Pt. Ravishankar Shukla University, Raipur | 17 th March 2017 |
| 07 | Dr.Sanjay Tiwari | Workshop on Renewable Energy Scenario & Prospects in India | Renewable Energy Technology & Management Centre Pt. Ravishankar Shukla University, Raipur | 30 th March-01 st April 2017 |

Research Award /Recognitions Received by Faculty & Research Fellow

| S N | Name of Awardees | Award Details | | | |
|--------|---------------------|--|-----------------------|---|---------------|
| | | Title | Year | Agency | Level |
| 01 | Dr Kavita Thakur | Bharat Vikas award | 10th Decem-ber 2016 | Institute of Self Reliance, Baramunda, Bhubaneswar, India | National |
| 02 | Dr Kavita Thakur | Outstanding performance, contri-bution and achievement in the field of Engineering and Technology | 29th May 2017 | The Institute of Engineers (I), Chhattis Garh State Centre,Raipur | State |
| 03 | Dr Kavita Thakur | Nominated Senior Member IEEE | March 2017 | Institute of Electrical and Electronics Engineers | International |
| 04 | Dr Sanjay Tiwari | Conferment of Sr. Associateship of International Centre for Theo-retical Physics, Trieste, Italy | 2012 to Dec 2017 | International Centre for Theoretical Physics,Trieste,Italy | International |
| 05 | Dr Sanjay Tiwari | Nominated Senior Member IEEE | March 2017 | Institute of Electrical and Electronics Engineers | International |
| 06 | Dr Sanjay Tiwari | Appointed National Convener of the academic committee 5 th Bharatiya Vigyan Sammelan at Fergusson College,Pune | 11th to 14th May 2017 | Fergusson College Pune and Vibha | National |

Dr. Sanjay Tiwari

Publications

| S. No. | Title | Journals Name | Volume | Impact factor |
|-----------|--|---|-------------------|---------------|
| 01 | Diminution in photo luminescent intensity of Srs: Ce 3+ phosphor due to increase milling time | Journal of Alloys and compounds Elsevier | 685 | 3.014 |
| 02 | Nanocrystalline Srs:Ce3+ system for the generation of white light –emitting diodes | Luminescence Elsevier | 31 | 1.1.452 |
| 03 | Srs:Ce3+ thin films for electroluminescence device appli-cations deposited by electron-beam evaporation deposi-tion method | Materials Letters | 183 | 2.437 |
| 04 | Fabrication, characterization and electroluminescence studies of SrS: Ce3+ ACTFEL device | Materials Letters | 198 | 2.437 |
| 05 | Fabrications and characterization of CdSe Quantum Dot-Sensitized Solar Cells by Successive Ionic Layer Adsorp-tion and Reaction(SILAR) Process | Optical Society of America PublishersThe Inter-national Conference on Fiber Optics and Photon-ics 2016 © OSA 2016 | | |
| 06 | Optoelectronic simulation for light enhancement of P3HT:PC70BM Conventional BHJ OSCs | Optical Society of America PublishersThe Inter-national Conference on Fiber Optics and Photon-ics 2016 © OSA 2016 | | |
| 07 | Optical Properties of Rare Earth Doped Srs Phosphor: A Review | Journal of Electronic Materials, | | 1.491 |
| 08 | Structural and Optical Properties of Ce doped Srs Thin Films Deposited by E-Beam Method | Journals of Basic and Applied Engineering Re-search | Volume 3 issue 8; | |
| 09 | Fabrication and Characterization of nanoporous TiO 2 layer on photoanode by using Doctor Blade Method for dye-sensitized solar cells | Optical Society of America PublishersThe Inter-national Conference on Fiber Optics and Photon-ics 2016 © OSA 2016 | | |
| 10 | Fabrication and Characterization of Novel Inverted Or-ganic Solar Cells Employing ZnO ETL and MoO3 HTL | Nanophotonics and Micro/Nano Optics Optical Society of America PublishersThe International Conference on Fiber Optics and Photonics 2016 © OSA 2016 | | |
| 11 | A Modelling and Simulation of MTJ in a Dynamic Be-haviour | International journals for technological Research in Engineering | vol 3 | |
| 12 | Modelling and Simulation of MTJ in a Static Behaviour, | International Journal for Research in Applied Science and Engineering Technology | Vol. 4 | |
| 13 | Simulation of Novel Magnetic Tunnel Junction for Read-Write Performance in –Plane Anisotropy | International Research Journal of Natural and Applied Science | Vol. 3, | |
| 14 | Digital India : Sashar Bharat Ka Aagaj | Science India Journal, | | |

Dr. Kavita Thakur

| | | | |
|----|--|--|-----------------|
| 01 | Assessment of menstrual cycle and behavioral changes using digital speech processing techniques. | International Journal of Communications, ISSN 1998 4480 | Vol. 10 |
| 02 | Directional Fuzzy Edge detection based on Modified Edge Regeneration system for efficient JPEG Artifacts Reduction | Journal of Ravishankar University , Part B (Science) , ISSN:0970-5910. | Vol 29 (2 & 3) |
| 03 | A novel Type-2 Fuzzy directed hybrid Post-Filtering Technique for Efficient JPEG Image Artifact Reduction | International Conference on Information Communication and Embedded System (ICICES 2016), S A Engineering College, Thiruverkadu, Chennai, India, ISBN: 978-1-5090-2552-7, 978-1-5090-2552-7/16/\$31.00 ©2016 IEEE | --- |
| 04 | Perceptive Performance Analysis of Discrete Orthogonal Cosine Stockwell Transform for Low Bit-Rate Image Compression | International Conference on Recent Trends in Engineering, Science and Technology (PNFE 2016), St Peter's Engineer-ing college, Dullapally, Hyderabad, Telangana, India, | |

Faculty Participation in Conference & Symposia

| S. No. | Name of Faculty | Semi./Confe./Sy./Work. | | Duration/ Dates |
|--------|------------------|---|---|--------------------------|
| | | State/National/International | Title | |
| 01 | Dr Kavita Thakur | International Conference | Recent Trends in Engineering, Science and Technology (PNFE 2016), pp ,25-27 St Peter's Engineering college, Dullapally, Hyderabad, Telangana, India | October 25-27,2016 |
| 02 | Dr Kavita Thakur | International Conference | 2017 International Conference on Big Data Analytics and Computational Intelligence (ICBDACI 2017), IEEE, Technically co-sponsored by IEEE Advancing Society, IEEE Computational Intelligence Society, organized by Chirala Engineering College, Chirala, Andhra Pradesh, India. | March 23-25, 2017 |
| 03 | Dr Kavita Thakur | National Conference | AICON 2017 (All India Conference on Environmental Impact of Electronics and Electrical) | April 21-22,2017 |
| 04 | Dr Kavita Thakur | National conference | Signal Processing, Sustainable Energy Material and Astronomy and Astrophysics (NSSEMA 2017) PRSU, Raipur | March 28-30,2017 |
| 05 | Dr Kavita Thakur | National conference | Signal Processing, Sustainable Energy Material and Astronomy and Astrophysics (NSSEMA 2017) PRSU, Raipur | March 28-30,2017 |
| 06 | Dr Kavita Thakur | National conference | Signal Processing, Sustainable Energy Material and Astronomy and Astrophysics (NSSEMA 2017) PRSU, Raipur | March 28-30,2017 |
| 07 | Dr Sanjay Tiwari | International Workshop cum Conference by ICTP, Govt. of Italy, International Atomic Energy Agency, UNESCO | Advanced Workshop on High-Performance & High-Throughput Materials Simulations using Quantum ESPRESSO | 16-27 Jan,2017 |
| 08 | Dr Sanjay Tiwari | International Workshop by Govt. of Italy, International Atomic Energy Agency, UNESCO | 18th International Workshop on Computational Physics and Materials Science: Total Energy and Force Methods | 12-14 Jan.2017 |
| 09 | Dr Sanjay Tiwari | International Workshop by ICTP, Govt. of Italy, International Atomic Energy Agency, UNESCO | Workshop on Spectroscopy and Dynamics of Photo induced Electronic Excitations | 8 May 2017 - 12 May 2017 |
| 10 | Dr Sanjay Tiwari | International Workshop by ICTP, Govt. of Italy, International Atomic Energy Agency, UNESCO | Advanced School & Workshop on Nonlocal Partial Differential Equations and Applications to Geometry, Physics and Probability | 22 May 2017 - 2 Jun 2017 |
| 11 | Dr Sanjay Tiwari | International Workshop by ICTP, Govt. of Italy, International Atomic Energy Agency, UNESCO | Summer School on Particle Physics (smr 3124) | 5 Jun 2017 - 16 Jun 2017 |
| 12 | Dr Sanjay Tiwari | International Conference | International Conference on Fibre Optics and Photonics, Optical Society of America Indian Institute of Technology Kanpur India | 04-08, 2016 |
| 13 | Dr Sanjay Tiwari | International Conference | International Conference on Fibre Optics and Photonics, Optical Society of America Indian Institute of Technology Kanpur India | 04-08, 2016 |
| 14 | Dr Sanjay Tiwari | International Conference | International Conference on Fibre Optics and Photonics, Optical Society of America Indian Institute of Technology Kanpur India | 04-08, 2016 |
| 15 | Dr Sanjay Tiwari | International Conference | International Conference on Fibre Optics and Photonics, Optical Society of America Indian Institute of Technology Kanpur India | 04-08, 2016 |
| 16 | Dr Sanjay Tiwari | International Conference | IEEE TENCON Technologies for Smart Nation International Region 10 Conference 2016 IEEE, 2016 Singapore | 22-25 Nov., 2016 |
| 17 | Dr Sanjay Tiwari | International Conference | IEEE TENCON Technologies for Smart Nation International Region 10 Conference 2016 IEEE, 2016 Singapore | 22-25 Nov., 2016 |
| 18 | Dr Sanjay Tiwari | International Conference | International Conference on Innovations & Sustainable Development in Sciences, Management & Technology (ICI-SDSMT-2017) | 25-26 March, 2017 |
| 19 | Dr Sanjay Tiwari | National Conference | 5 th Bharatiya Vigyan Sammelan 2017 "Confluence of traditional and modern sciences, Fergusson College Pune | 11th to 14th May 2017 |
| 20 | Dr Sanjay Tiwari | National Conference | Bharatiya Vigyan Sammelan 2017 "Confluence of traditional and modern sciences", Pune | 11th to 14th May 2017 |
| 21 | Dr Sanjay Tiwari | State Conference | Bhartiya Shikshan Mandal | July 24, 2016 |

Collaborating Institute for M.Tech Project 2016-17

| S.N | Name of Student | Title | Coordinating institute | Supervisor | Year |
|-----|---------------------|--|--|--|----------------|
| 1. | Preetika Mishra | “Optical properties of lithium doped ZnO nanoparticles”. | Institute of Physics, Bhubaneswar, Odissa, India | Dr. Satya prakash sahuo, Reader F, Physics department, Institute of physics, Bhubneshwar, odisha. | June 2016-2017 |
| 2. | Shikha Jha | Numerical study of “Inverse Compton scattering” through laser produced plasmas | Laser plasma section , Raja Ramanna centre for advanced technology , Indore ,(MP) | Dr. Ajit upadhyay, scientific officer-f, laser plasma section, RRCAT , Indore,(MP) | June 2016-2017 |
| 3. | Rupa Patel | Measurement of surface from error and surface profiles of optics for lasers and X-Rays. | Optical design and development laboratory , Raja Ramanna centre for advanced technology , Indore ,(MP) | Shri M P. Kamath, scientific officer-G and head, ODDL, Advanced laser and optics division, RRCAT , Indore,(MP) | June 2016-2017 |
| 4. | Ankita Tiwari | Growth of silver nanostructured LB films for surface enhanced raman spectroscopy of semiconductor nanostructure. | Laser physics application section , Raja Ramanna centre for advanced technology , Indore ,(MP) | Dr. Alka A. Angle, scientific officer-H, Laser physics application section, RRCAT , Indore,(MP) | June 2016-2017 |
| 5. | Ritu Verma | Structural and dielectric properties of (x) BiFeO ₃ -(1-x) BaTiO ₃ solid solution. | Synchronization utilization section , Raja Ramanna centre for advanced technology , Indore ,(MP) | Dr. Archana sagdeo, scientific officer-E,SUS,INDUS-2, Raja Ramanna centre for advanced technology , Indore ,(MP) | June 2016-2017 |
| 6. | Sonal Chandrakar | Studies on structural and optical properties of Nickel oxide thin films. | Synchronization utilization section, Raja Ramanna centre for advanced technology , Indore ,(MP) | Dr. Shreyashkar Dev singh, scientific officer-F,SUS, Raja Ramanna centre for advanced technology , Indore ,(MP) | June 2016-2017 |
| 7. | Seema Verma | Synthesis and characterization of TiO ₂ doped carbon aerogels. | Laser material section , Raja Ramanna centre for advanced technology , Indore ,(MP) | Dr. D. K. Kohli, scientific officer-G,LMS, Raja Ramanna centre for advanced technology , Indore ,(MP) | June 2016-2017 |
| 8. | Manisha Ratre | The influence of early transition metals on the structural and mechanical properties of FeCo(ETM) B ALLOYS; ETM = Nb,Zr,Mo | Synchronization utilization section, Raja Ramanna centre for advanced technology , Indore ,(MP) | Dr. Pooja Gupta ,Assistant professor HBNI scientific officer-E,SUS, Raja Ramanna centre for advanced technology , Indore ,(MP) | June 2016-2017 |
| 9. | Sarbhjot Kaur | Study of transport characteristics and optoelectronics properties of reduced graphene oxide | CSIR- National physical laboratory, New Delhi | Dr S.P.Khanna, principal scientist CSIR- National physical laboratory, New Delhi | June 2016-2017 |
| 10. | Veena Diyawar | Study of interface properties in LaAlO ₃ /SrTiO ₃ heterostructures prepared by pulsed laser deposition | CSIR- National physical laboratory, New Delhi | Dr. Anjana Dogra ,senior scientist,CSIR- National physical laboratory, New Delhi | June 2016-2017 |
| 11. | Dharmendra Kumar | Structural and optical characterization of (G _A xCr _{1-x}) ₂ O ₃ (0<x<0.45) and (AL _x Cr _{1-x}) ₂ O ₃ (0<x<1) Synthesized using solid state reaction method. | SUS, Raja Ramanna centre for advanced technology , Indore ,(MP) | Dr. Ravindra jangir,scientific officer-E,SUS, Raja Ramanna centre for advanced technology , Indore ,(MP) | June 2016-2017 |
| 12. | Rahul Kumar Thakur | Synthesis and characterization of transition metal based oxides. | SUS, Raja Ramanna centre for advanced technology , Indore ,(MP) | Dr. A. K. Sinha,SUS, Raja Ramanna centre for advanced technology , Indore ,(MP) | June 2016-2017 |
| 13. | Udit Kumar Dewangan | Soft X-ray harmonics analysis using multilayer technique. | SUS, Raja Ramanna centre for advanced technology , Indore ,(MP) | Dr. M. H. Modi, SUS, Raja Ramanna centre for advanced technology , Indore ,(MP) | |
| 14. | Dishi Purohit | Investigation of magnetic domain and local structure of MgO/co/MgO trilayer. | INDUS synchrotrons utilization division, Raja Ramanna centre for advanced technology , Indore ,(MP) | Dr. parasmani rajput, scientific officer, A&MPD, BARC , Mumbai.Raja Ramanna centre for advanced technology , Indore ,(MP) | |

BOOK PUBLISHED

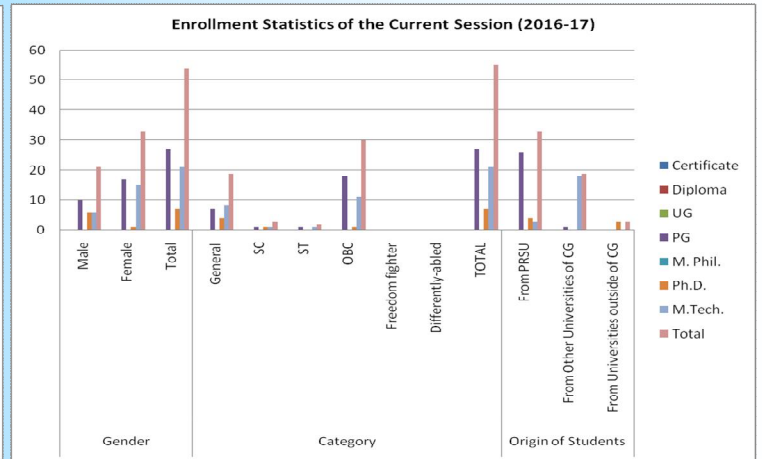
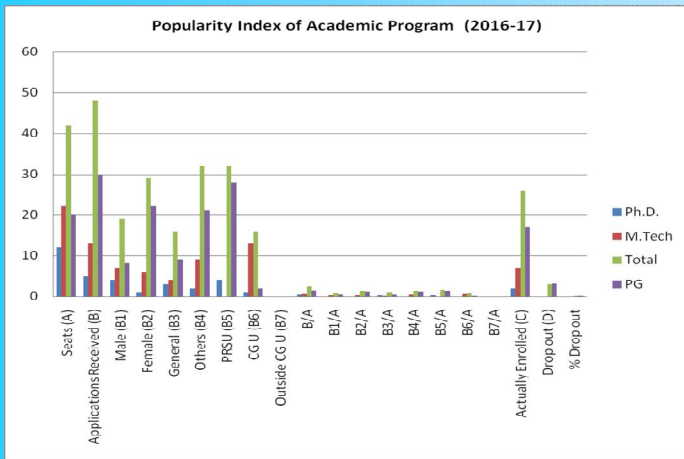
Dr. Kavita Thakur

| S. No. | Author | Title | Publisher | Year | ISBN No. |
|--------|---|--|---|---------------|--|
| 01 | Prafulla Vyas and Kavita Thakur | Electronic Instruments for studying the atmospheric effect over PV Cell | LAP LAMBERT Academic Publishing, Omni Scriptum GmbH & Co. KG, Germany | October 2016 | ISBN-978-3-659-83378-6, Published on 31-10-2016 |
| 02 | Vikrant Singh Thakur, Kavita Thakur, Shubhrrata Gupta | Advances in Circuit Systems, Signal Processing and Communications (Recent Advances in Electrical Engineering Series- 59) Book Chapter: A Novel Type-2 Fuzzy Directed Hybrid Post Filtering Technique for efficient JPEG Image Artifact Reduction. | WSEAS Press, www.wseas.org, Barcelona, Spain. | February 2016 | ISBN : 978-1-61804-365, ISSN: 1790-5117, pp 125-134, February 13 -15, 2016 |

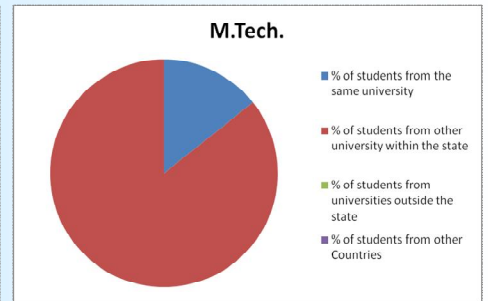
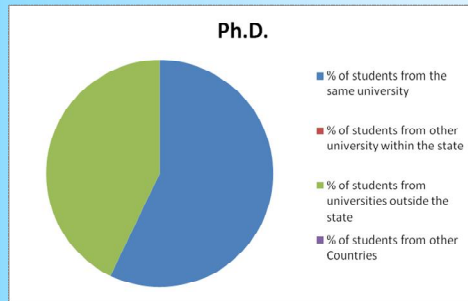
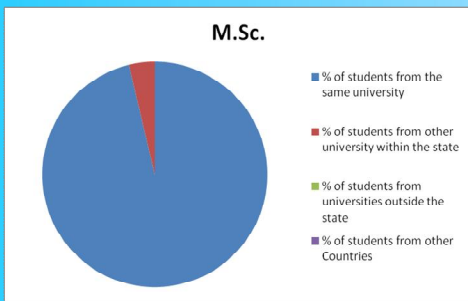
Dr. Sanjay Tiwari

| S. No. | Author | Title | Publisher | Year | ISBN No. |
|--------|---|--|---|------|---|
| 01 | Sanjay Tiwari, J. V. Yakhmi Sue Carter J. Campbell Scott | Optimization of Bulk hetero-junction Organic Photovoltaic Devices: | Design and Devices Physics Handbook of Ecomaterials, edited by Leticia Myriam Torres Martinez, Oxana Vasilievna kharissova and Boris Ildusovich Kharisov, Springer Nature,2017-10-12 Springer International Publishing | 2017 | 978-3-319-68254-9 Print + eBook ISBN 978-3-319-68256-3 |
| 02 | Sanjay Tiwari, Tiwari, J. V. Yakhmi Sue Carter J. Campbell Scott | Advances in Polymer-Based Photovoltaic Cells: Review of Pioneering Materials, Design, and Device Physics | Handbook of Ecomaterials. Springer, Cham Ed Leticia Myriam Torres Martínez Oxana Vasilievna Kharissova Boris Ildusovich Kharisov | 2017 | 978-3-319-68254-9 Print + eBook ISBN 978-3-319-68256-3 |
| 03 | M Patel, S.Sahu, A.K. Verma ,P. Agnihotri,surya Praksh Singh ,Ramanuj Narayan and Sanjay Tiwari | Quantum Dot as Light Harvester Nanocrystals for solar cell Applications, quantum Dot as Light Harvester Nanocrystals for Solar cell Applications | Materials Research Forum LLC (http://www.mrforum.com) International Publishers in science & Engineering, USA) special Volume on : Recent Advances in Photovoltaic” under ‘Materials Research Foundation series’.2017 | 2017 | 978-1-945291-36-4 |
| 04 | Pooja Agnihotri,M. Patel ,A.Verma,S.Sahu,Sandeep Pathak and Sanjay Tiwari | Advancement in Simulation & modelling of Organic Solar Cells | Materials Research Forum LLC (http://www.mrforum.com) International Publishers in science & Engineering, USA) special Volume on : Recent Advances in Photovoltaic” under ‘Materials Research Foundation series’.2017 | 2017 | 978-1-945291-36-4 |
| 05 | A.K. Verma, M. Patel, S.Sahu, P Agnihotri & S Tiwari | Recent Advance in Polymer Solar cells | Materials Research Forum LLC (http://www.mrforum.com) International Publishers in science & Engineering, USA) special Volume on : Recent Advances in Photovoltaic” under ‘Materials Research Foundation series’.2017 | 2017 | 978-1-945291-36-4 |
| 06 | Rashmi Swami, Sanjay Tiwari | Status and Potential of Organic Solar Cells | Special Volume on “Recent Advances in Photovoltaic” under Materials Research Foundations Volume 17.2017 | 2017 | 978-1-945291-36-4 |
| 07 | Rashmi Swami, R Awasthy, Sanjay Tiwari | Fill factor analysis of organic solar cell | Special Volume on “Recent Advances in Photovoltaic” under Materials Research Foundations Volume 17.2017 | 2017 | 978-1-945291-36-4 |
| 08 | Rashmi Swami, Sanjay Tiwari | Efficiency rise in PCDTBT:PC70BM organic solar cell using interface additive | Special Volume on “Recent Advances in Photovoltaic” under Materials Research Foundations Volume 17.2017 | 2017 | 978-1-945291-36-4 |

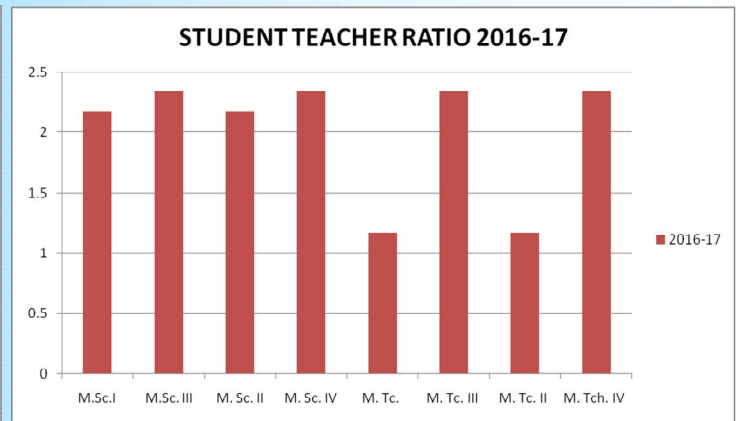
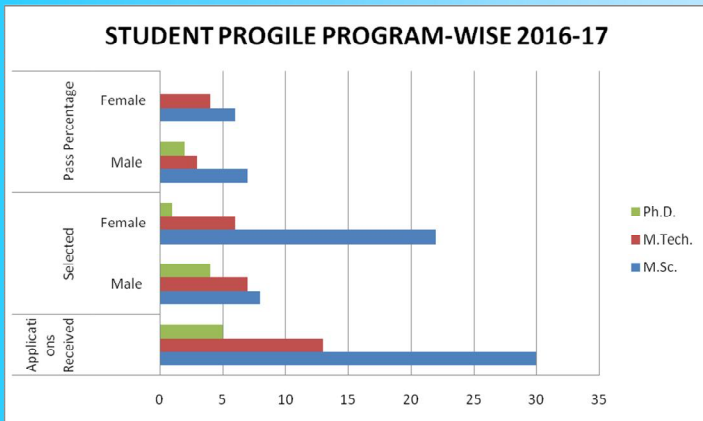
Popularity Index & Enrollment Statistics of the Current Session (2016-17)



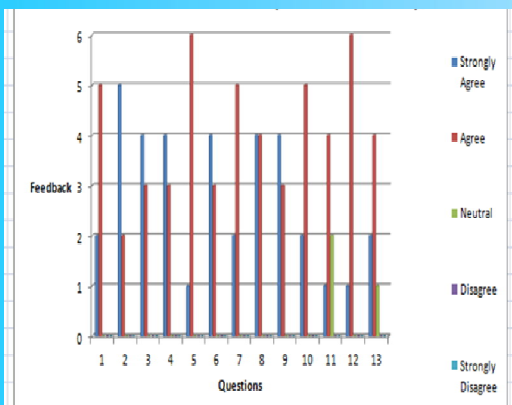
DIVERSITY OF STUDENTS



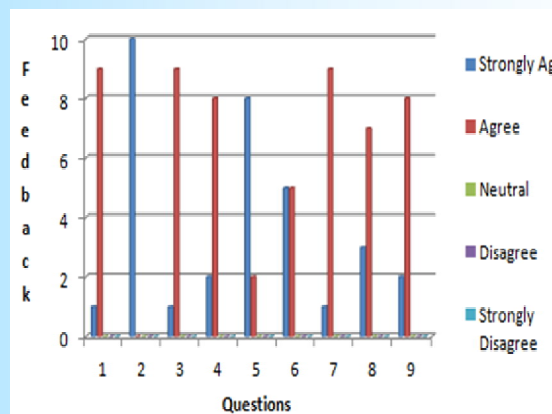
STUDENT PROFILE PROGRAM - WISE & STUDENT TEACHER RATIO



Parents Feedback M. Tech. July 2016-Dec 2017



Alumni Feedback M. Tech. July 2016-Dec 2017



M.Sc Project 2016-17

| S. No. | Name of students | Name of Projects |
|--------|------------------------------------|--|
| 1. | Sameer Kumar Rupali Verma | Voice Recognized Home Appliance Control |
| 2. | Chuneshwar Khilendra Kumar Sahu | Wireless Based Light Control System |
| 3. | Bhawna Dewanga Shalinee Verma | Audio Amplifier |
| 4. | Manish Sahu Siddharth Sharma | IR Ray Based Home Appliance Control System |
| 5. | Hemlata Laxmi Dewangan | Digital Code Lock |
| 6. | Nandini Netam | Transistor Tester Using IC-4093 |
| 7. | Dipika Tiwari | Password Based Door Lock System |
| 8. | Chitern Kumar Parmeshwar | Uni-direction People counter |

List of Alumni

List of noteworthy alumni in S.O.S in electronics & photonics they are Researcher employee at VU Amsterdam, Scientific Officer, RRCAT Indore, Assistant Professor, DIMAT, Raipur, TTA, BSNL, Raipur, Forest Department, Raipur, PO in Indian Overseas Bank, Network Engineer, Data Craft India Limited, Section Engineer Telecom SECR in DURG, RRB Technician (Electrical), Chennai, Service engineer at Laser service private limited, R & D Engineer at Karee Lightning, Executive, watch News Channel, Data manager in IDHB, Sale Tax officer, Assistant Professor, DIMAT, Raipur, works at FESTO, Assistant manager, Union Bank

Doctorate

| S. No. | Name of Candidate | Supervisor/ Co supervisor | Title | Date of Award |
|--------|--------------------|-----------------------------------|--|---------------|
| 01 | Dr. Shubhra Mishra | Co Supervisor Dr Sanjay Tiwari | Characterization and Luminescent studies of SrS: Ce ³⁺ , SrS: Dy ³⁺ Phosphor and Srs: Ce ³⁺ . Thin films" | 20.03.2017 |

Ph. D. Scholar



Sunandan Mandal
PhD Scholar

I am working in the field based on Machine learning approaches for Electroencephalogram (EEG) based Brain Computer Interface (BCI), its applications in cognitive state classification. Cognitive state classification is a grown up field of science and technology. Imagined speech recognition, epileptic seizure detection, motor imagery, mental arithmetic task and emotional state recognition are some region of cognitive state recognition. The primary goal of the research in the field cognitive state classification is to help to improve quality of life the people with speaking disability like amyotrophic lateral sclerosis (ALS), locked in syndrome (LIS), paralysis, laryngectomy, epileptic seizer and psychic disease related patient. Related research work is not sufficient and still improvement requires in diagnosis and treatment process of such diseases.



Anil Kumar Verma
PhD Scholar

The main Research area of photonics Research Laboratory (PRL), Pt. Ravishankar Shukla University Raipur,CG is to enhance the solar energy via low cost material like Organic Dye; Quantum dot and pervoskite materials.

My Research interests include Simulation, Fabrication and characterizations of Organic Photovoltaic cells.

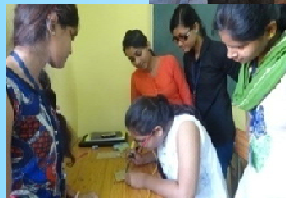
Organic Photovoltaic cells are the third generation of solar cells technology. It is a new solar cell technology that includes light weight technology, flexible, large area, low cost etc. So, we can fabricate solar cell on Plastic, Glass substrate.

Various Events



Annual Fest 15-16 February 2016

Sports generally include physical activity and maintain our physical ability, students of M.sc and M tech participated in annual fest in cricket competition held in 15-16 February 2016 Physical education departments, PTRSU, Raipur.



Embedded system workshop 15th & 16th Feb 2017.

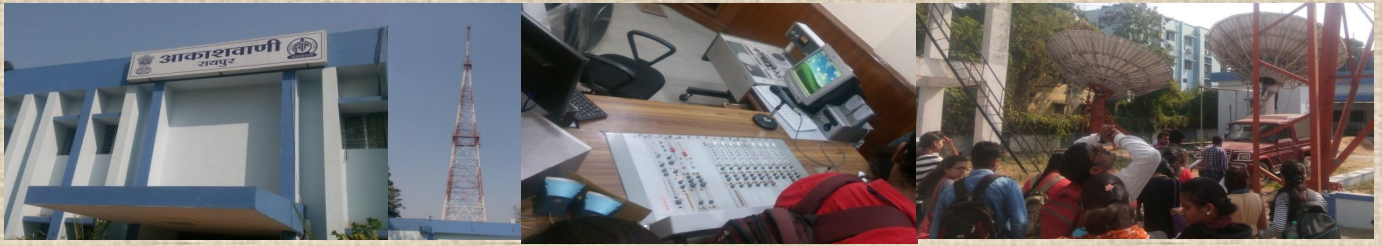
Students of M.sc and M tech participating in designing embedded systems for the new era of computing as this course is totally focused on giving us real coding experience and also done the hands on project work in S.O.S. in electronics & photonics department.



Sweeping leaves & dust in 29th July Saturday 2017

Green campus was initiated by the M.sc and M tech student's coordinators to make their campus more meliorate and friendly environment, as a part of this program students planted trees in the campus and also remove some unwanted plastics and waste material from the campus.

PHOTO GALLERY



Field Visit to ALL INDIA RADIO (27 January 2017)

On 27th of January, the students of MSc. and M. Tech., got a wonderful opportunity to observe real time working of the broadcasting process taking place at “All India Radio”. Total 22 students along with 2 faculty members had been to this field visit.



Two Days Workshop on EMBEDDED SYSTEM'17

Two Days workshop on “Embedded System Design and Hands on Practice” was organized by Electronics & Photonics and Computer Science & IT department of Pt. Ravishankar Shukla University, Raipur in collaboration with IndEyes Infotech Pvt. Ltd, Delhi on 15-16 Feb 2017 in the university campus.



NATIONAL LEVEL ARDUINO WORKSHOP CUM TRAINING

A three days “National level ARDUINO workshop cum training” was organized from 21st to 23rd September, 2017 in the joint venture of School of Studies in Electronics and Photonics of Pt. Ravishankar Shukla University, Raipur and Indeyes Infotech PVT. LTD. New Delhi.



National workshop on Signal Processing, sustainable Energy Material and Astronomy & Astrophysics (NASSEMA 17)

The conference provides, both for researchers and developers, an engaging forum to exchange ideas and propel and new developments in this fields. The conference facilitated a fantastic opportunity to network with like-minded professional from around the country.

FACILITIES

Infrastructure

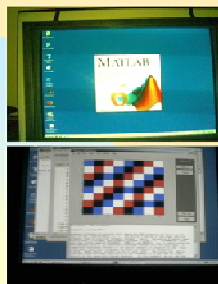
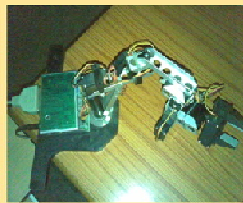
| | |
|-------------------------------|---|
| Spacious Classrooms | 06- Classrooms |
| ICT facilities | 01- Permanent 01- Portable |
| Student's Laboratories | 01- Student Lab 01- Student Lab cum Research Lab 01- Student Lab cum Class Room 01- Computer Lab |
| Research Laboratories | 01- Student Lab cum research Lab |
| Internet Facilities | Whole campus is covered with Wi-fi facilities |

Lab facilities of Department

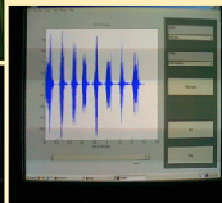
- ◆ Analog and Digital Lab.
- ◆ Opto-Electronics and Microwave Lab.
- ◆ Analog and Digital Communication Lab.
- ◆ Microprocessor , Microcontroller & VLSI Design Kit Lab.
- ◆ Advanced Optical Communication Lab.
- ◆ Virtual Instrumentation Lab (LabView).
- ◆ Advanced computing through MATLAB 2007 (a) and its Toolboxes.



ROBOTICS LAB



Virtual Lab Using MATLAB



Microcontroller & Embedded Lab



FUTURE PLAN

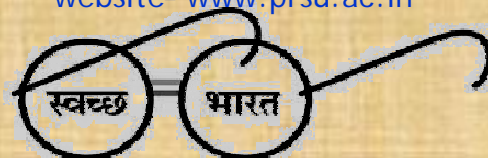
- Campus and Placement Cell for M.Sc. and M. Tech.
- M. Sc. by research
- Integrated M. Sc.
- More equipment in lab with proper space.
- Clean lab.



CONTACT :

Head of Department

School of Studies in Electronics and Photonics
Pt. Ravishankar Shukla University
Amanaka G.E. Road, Raipur (Chhattisgarh) India - 492010
website- www.prsu.ac.in



एक कदम स्वच्छता की ओर