

FACILITIES

Infrastructure

Spacious Classrooms	04- Classrooms
ICT facilities	03- Permanent (Wall mount) 02- Portable
Student's Laboratories	04- Student Lab 01- Computer Lab
Research Laboratories	02- Student Lab cum research Lab
Internet Facilities	Whole campus is covered with Wi-fi facilities
Smart Class	01

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.
- ◆ Photonics & Organic Electronics Lab
- ◆ Virtual Instrumentation Lab (LabView).
- ◆ Advanced computing through MATLAB 2007 (a) and its Toolboxes.
- ◆ Photonic Research Laboratory
- ◆ Signal Processing Research 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

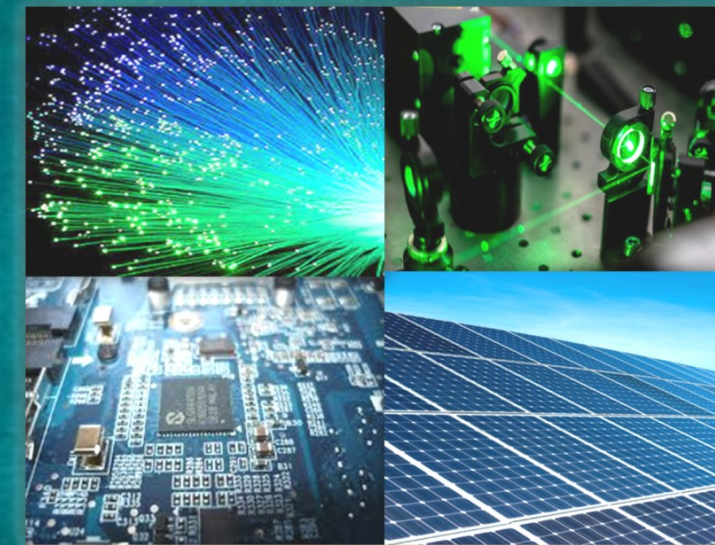
Amanaka G.E. Road, Raipur (Chhattisgarh) India - 492010

SCHOOL OF STUDIES IN ELECTRONICS & PHOTONICS



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

SHILALEKH 2021



Established in 1994

About Us

Preamble: 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 conducts courses leading to M.Tech. (Optoelectronics & Laser Technology) and M Sc (Electronics). All students joining the M Tech course are required to undergo one year project in an industry or R&D organization and industrial training. The curriculum of these courses is updated regularly to keep it in consonance with the changing industrial environment. It is our mission and vision to implement a curriculum at our University which is at par with the best in the world. Since its birth in 1994, the department has grown in an exponential manner.

The School of Studies in Electronics jointly in collaboration with School of Studies in Physics, is running a Two-year M. Tech Programme in Opto-electronics and Laser Technology sponsored by University Grants Commission under its INNOVATIVE PROGRAMME: Teaching and Research in Interdisciplinary and Emerging Areas. The M.Tech program has been started as an endeavour to attract best of the minds towards teaching and research and to give emphasis in teaching and research in emerging technologies. It has been developed realizing the rapidly growing need for well trained manpower in the field of optoelectronics and lasers. Our M. Tech programme emphasizes practical applications of photonics and provides an educational experience relevant to the student's future career in the photonics-based industry and R & D organizations.

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. The faculty has succeeded in keeping a lively atmosphere among the students, with timely up gradations in the curriculum and innovative teaching techniques. The research thrust of the department is on achieving scientific and technological excellence, through front line research problems with broader socio-scientific relevance. The faculty members are actively engaged in research as well as supervision of research leading to a Ph D degree in the field of optical electronics, semiconductors, Speech & Image Signal Processing and microelectronics. The Department has international collaborations and several research projects funded by the UGC, CCOST, USIEF and UK-India Consortium British Council.

The Department actively helps the students in their placement through Campus interviews. Students post graduating from the Department have found positions in both government and private organizations working in Education, Re-

search & development in Photonic Applications, Telecommunications and Semiconductors.

Milestones of SoS in Electronics

- An academic Collaboration (MoU) has been signed between Department of Physics, UNIVERSITY OF CALIFORNIA, SANTA CRUZ USA and School of Studies in Electronics PT RAVISHANKAR SHUKLA UNIVERSITY, RAIPUR (C.G.) INDIA on June 21, 2011 to recognize the value of educational, cultural, and scientific exchanges between two Universities and give students the opportunity to have experience in learning out in the upcoming fields and conduct research on state of art equipments and lab facilities.
- Mr. Hari Prasad Mishra , Student of M.Tech in Optoelectronics & Laser Technology has joined as Ph.D. student at the Faculty of Science , Department of Physics and Astronomy, at the Vrije University ,Van Amsterdam from 1st September 2011
- Prestigious International US Fulbright Senior Fellowship Awarded to Dr Sanjay Tiwari, Associate Professor
- Eight Students of M.Tech in Optoelectronics & Laser Technology selected by Raja Rammana Center for Advanced Technology , Indore for project work for 2011-12 and 15 students in 2012-13

Mission

The mission of the S.O.S in Electronics is to provide education for those students who are able to compete internationally, able to produce creative solutions to the society's needs, conscious to the universal moral values, adherent to the professional ethical code, and to generate and disseminate knowledge and technologies essential to the local and global needs in the field of electronics and photonics.

Vision

The vision of the S.O.S in Electronics is 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 center of research and education generating the knowledge and the technologies which lay the groundwork in shaping the future in the fields of electronics and photonics



PHOTO GALLERY



Young Scientist Award



Youth Empowerment & Capacity



One Day Workshop on Folscope



Three Days National Level Arduino Workshop cum Training



Three Days National Conference on Signal Processing, Sustainable Energy Material and Astronomy & Astrophysics



Two Weeks Faculty Development Programme on Entrepreneurship from 20 Jan. to 01 Feb. 2020



Aakruti Girls sports team



Independence day occasion plantation of flowers



Quiz Competition

About This Quiz
India is celebrating 75 years of its independence as Azadi Ka Amrit Mahotsav. The celebrations started with the launch of Dandi Yatra by Hon'ble Prime Minister of India on 12th of March 2021 and all Union Ministries / Departments / organisations are planning different activities for the 75 week long celebrations of Azadi Ka Amrit Mahotsav. As part of the celebrations of Azadi Ka Amrit Mahotsav, This quiz has been organized in SOS in Electronics and Photonics, PRSU on December 22, 2021.

OUR PRIDE

GOLD MEDALLIST

M. Sc. (Electronics)

S. No.	Name of student	Year
1	Javed Akram	2016
2	Siddharth Sharma	2017
3	Vinush Bagga	2018
4	Ku. Uttara	2019
5	Purushottam	2020
6	Sonu Kumar Sing	2021

M-Tech (Optoelectronics and Laser technology)

S. No.	Name of student	Year
8	Arun Jaiswal	2016
9	Ku. Rupa Patel	2017
10	Kamal Solanki	2018
11	Vivek Yadav	2019
12	Samved Naik	2020
13	Thaneshwari Sahu	2021

ALUMNI

S. No	Name Of the Alumni	Year
1.	Mr. Santosh Kumar Soni Scientist D, Govt. of India, New Delhi	1996 (M.Sc.)
2.	Mr. Santosh Tamboli Sr. Lecturer, SCERT, Raipur	1996 (M.Sc.)
3.	Shrihari Narayan Sahu Dept. Registrar, Admin, DIAT, Pune	1996 (M.Sc.)
5.	Mr. Lambodar Patel Inspector Anti corruption bureau Raipur	1996 (M.Sc.)
6.	Mr. Bharat Bhusan Shrivastav Sr. Scientist, RRCAT, M.P.	1997 (M.Sc.)
7.	Mrs. Pratiksha Dube JTO (Junior Telecom Officer), BSNL, DURG	2000 (M.Sc.)
8.	Mrs. Reena Pandey TTA, BSNL, Raipur	2000 (M.Sc.)
9.	Mr. Tikendra Prakash Singh Assitt. Reg., Central University, Bilaspur	2002 (M.Sc.)

S. No	Name Of the Alumni	Year
10.	Hemant Kumar Dewangan Jr. Technical Officer (Scientific) SQAE (Armts), Ambajhari, Nagpur	2002 (M.Sc.)
11.	Ram Krishna Deshmukh Sr Assist. Prof. & HOD, Physics department, ISBM University, Gariyaband	2003 (M..Sc.)
12.	Mr. Vikas Chandrakar Inspector, Central Excise & Custom, Raipur, C.G.	2004 (M.Sc.)
13.	Shri Uttam Chandrakar Inspector, RTO Raipur, C.G.	2004 (M.Sc.)
14.	Mrs. Rabia Khan Food Inspector, Kanker, C.G.	2004 (M.Sc.)
15.	Dew Charan Gawde Assistant Registrar, Shaheed Mahendra Karma Vishwavidyalaya Bastar Jagdalpur	2013 (M.Tech.)
16.	Arjeeta Mishra Research assistant & Inventory Manager, Nav Wireless Technologies Pvt. Ltd.	2016 (M.Sc.)



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

FACULTY

Photos	Name	Qualification	Designation	Specialization	No. Years of Experience	Ph. D. 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	23
	Dr. Kavita Thakur	BE, ME, Ph. D	Professor & Head	Speech, Image signal Processing and controls	22 years	8
	Mr. Naman Shukla	M. Sc. Electronics & M. Tech. Opto- electronics & Laser Technology, Ph. D. pursuing	Guest Faculty	Electronics, Opto-electronics & Laser Technology, Solar Cell	4 Years	----
	Ms. Neha Dewangan	M. Sc. Electronics	Guest Faculty	Electronics & Telecommunicaiton, Optoelectronics and Laser Technology	5 Years	—
	Ms. Neha Verma	M. Sc. Electronics	Guest Faculty	Electronics	01 Year	---
	Sweta Minj	M. Tech, B.E. (ET&T),	Guest Faculty	Opto Electronics & Laser Technology	01 Year	—
	Mr. Kishan Ogare	M. Sc. Electronics	Guest Faculty	Electronics	01 Year	

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

Photos	Name	Designation	Qualification	Photos	Name	Designation	Qualification
	Mr. Surendra Singh	Lab Technician	B. E.		Mr. Satish Tiwari	Lab Attendant	Higher Secondary
	Mr. Deepak Sharma	UDC	M. Com., Ph. D. pursuing		Mr. Rakesh Banjare	Gardener	M. A.
	Mr. Anand Prakash Tigga	Technician Grade-I	12th, ITI				

Seminar /Conference/ Workshop Organized

S. No.	Title	Convener/Coordinator
1.	National workshop on "Entrepreneurships in Renewable Energy Technologies for Chhattisgarh Tribal" during 19 – 24, September 2016	Dr. Sanjay Tiwari
2.	National Level Workshop on Embedded system during 15 – 16, February 2017	Dr.Kavita Thakur
3.	National Conference on Signal Processing, Sustainable Energy Materials and Astronomy & Astrophysics during 28 – 30, March 2017	Dr.Kavita Thakur
4.	Thematic Seminar of Prof. Chetan Singh Solanki, Professor, IIT Bombay on WIRED TO WIRELESS SOLAR ELECTRICITY-A NEW WAY OF THINKING on 7th September 2017	Dr. Sanjay Tiwari
5.	Three Days National Level Workshop cum Training Program on Arduino during 21 – 23, September 2017	Dr.Kavita Thakur
6.	Thematic lecture of Prof.S.P.Gautam, Member, MPPSC on "ENGINEERING SUSTAINABLE SOLUTIONS IN ENERGY AND THE ENVIRONMENT" on 3rd October 2017	Dr. Sanjay Tiwari
7.	Workshop on Research Based Pedagogical Tools (RBPTs) for Teachers of Undergraduate Science and Mathematics Courses Indian Institute of Science Education and Research (IISER) Pune and the British Council with support from DBT and Newton Bhabha Fund of the British Council during 6– 9, October 2017	Dr. Sanjay Tiwari
8.	Three Days National Level Workshop cum Training Program on IoT (Internet of Things) during 26– 28, March 2018	Dr.Kavita Thakur
9.	Thematic Lecture of Mr.VinodBehari, CEO, Power Sector Skill Council, New Delhi on India's advancements in Power Generation through Renewable Energy on 17th November 2018	Dr. Sanjay Tiwari
10.	Workshop on "Cognitive Skills, Design Thinking & Critical Thinking " organised by Institution Innovation Council & SOS in Electronics & Photonics & RETM PRSU Raipur on 30th November 2018	Dr. Sanjay Tiwari
11.	Workshop on " Intellectual Property Right (IPR) " organised by Institution Innovation Council & SOS in Electronics & Photonics & RETM PRSU Raipur on 15th December 2018	Dr. Sanjay Tiwari
12.	Youth Empowerment and Skill Development on 14th February 2019	Dr. Sanjay Tiwari
13.	National workshop on " Computer Interfaced Science Experiments - Exp-Eyes' organised by SOS in Electronics & Photonics, IRET PRSU Raipur and Inter University Accelerator Center New Delhi during 30 – 31, March 2019	Dr. Sanjay Tiwari
14.	5 Days National Level Five Day Workshop on Entrepreneurship & Skill Development Programme on Solar PV Rooftop during 3– 8, April 2019	Dr. Sanjay Tiwari
15.	Two Day SUPRABHA Training Program: "Rooftop Solar Grid Engineers for Utility officers " supported by Skill Council Green Jobs NSDC during 25– 26, April 2019	Dr. Sanjay Tiwari
16.	Workshop on "MooCs , E-content Development and Open Educational Resources" organised by SoS in Electronics & Photonics and HRDC PTRSU, Raipur during 19– 24, August 2019	Dr. Sanjay Tiwari
17.	Workshop on "Foldscope- an Educational Tool" organized by RETM and SoS in Electronics and Photonics, PRSU Raipur on 30th September 2019	Dr. Sanjay Tiwari
18.	Student Solar Lamp Assembly Workshop Assembly 9GGSY, SSA-2019 on 2nd, 5th, 10th and 12th, October 2019	Dr. Sanjay Tiwari
19.	International Seminar on Recent Advances in Sensors for Human Healthcare on 29th November 2019	Dr. Sanjay Tiwari
20.	Faculty Development Programs (FDP) on Entrepreneurship with CITCON during 20th January – 1st February, 2020	Dr. Sanjay Tiwari
21.	Bright Idea Competition for Creating Awareness of Energy Conservation on 24th February 2020	Dr. Sanjay Tiwari
22.	Industry Institute Interaction Webinar : Optical and Electrical Modelling & Simulation for organic Semiconductor Devices using SETFOS software on 5th February 2021	Dr. Sanjay Tiwari
23.	Webinar on Raman Effect and Fiber Optics revolution Prof Ajoy Ghatak on 28th February 2021	Dr. Sanjay Tiwari
24.	Webinar on Science and Technology for Innovations, Entrepreneurship and Jobs by Dr J V Yakhmi on 17th March 2021	Dr. Sanjay Tiwari
25.	A Lecture on Communication Skill Delivered by Prof Ajeya Jha, Professor, Sikkim Institute of Technology, Sikkim, India on 29th November 2021.	Dr. Kavita Thakur

NET/SET/GATE QUALIFIED

S. No.	Name of Student	NET/ SET/	Year
1.	Naman Shukla	NET	2017 (Nov)
2.	Samved Nayak	GATE	2018 (Feb)
3.	Neha Dewangan	NET	2018 (Dec)
4.	Naman Shukla	NET	2018 (Dec)
5.	Umang Singh	NET	2018 (Dec)
6.	Yogesh Kumar Dongre	NET	2018 (Dec)
7.	Abhijeet Yadav	GATE	2019 (Feb)
8.	Javed Akram	NET	2019 (Jun)
9.	Samved Nayak	NET	2019 (Jun)
10.	Samved Nayak	GATE	2019 (Feb)
11.	Yuvraj Singh Jagat	SET	2018
12.	Javed Akram	NET	2019 (Dec)
13.	Yogesh Kumar Dongre	NET	2019 (Dec)
14.	Samved Nayak	NET(JRF)	2019 (Dec)
15.	Samved Nayak	GATE	2020 (Feb)

List of student qualified State/National/international level government Examination

S. No.	Names of students selected/ qualified	Examination	Year of joining
1.	Dev Charan Gawde	Asstt. Registrar CGPSC	2017
2.	Varsha Sahu	CG Patwari	2019
3.	Vikrant Singh Thakur	Scientific Officer	2019
4.	Mohan Patel	Scientific Officer	2019
5.	Bhupendra Kumar Sen	Lecturer Physics	2021
6.	Khilendra Sahu	Lecturer Physics	2021
7.	Chitren Kumar	Lecturer Physics	2021
8.	Prem Das	Lecturer Physics	2021
9.	Yuvraj Singh Jagat	Asstt. Registrar CGPSC	2021

Best Young Scientist Award

S.	Name of Student	Year	Research Field
1.	Ms. Pooja Agnihotri	2016	Organic Solar cells
2.	Dr. Swati Sahu	2019	Dye-sensitized solar cells

Ph. D. Degree Awarded (Research Center: School of studies in Electronics and Photonics)

S. No	Name of Research Scholar	Title	Year	Name of Supervisor/ Co-Supervisor
1.	Rashmi Swami	Simulation & Analysis of Device Characteristics of Bilayer Organic Solar Cells	2016	Dr. Sanjay Tiwari
2.	Shubhra Mishra	AC thin film electroluminescent devices with rare earth doped SrS	2017	Dr. Sanjay Tiwari
3.	Swati Sahu	Development of High Efficiency Low Cost Dye Sensitized Solar Cells.	2018	Dr. Sanjay Tiwari
4.	Rajesh Kumar Awasthi	Development of unified Model for Charge Carrier Transport in Organic Semiconductor based Devices	2018	Dr. Sanjay Tiwari
5.	Krishan Jibon Mondal	Investigations On Magnetoresistive Random Access Memory	2018	Dr. Sanjay Tiwari
6.	Mohan Patel	Design and Optical Simulation of Nano-Crystalline Quantum Dot Solar Cells	2019	Dr. Sanjay Tiwari
7.	Vikrant Singh Thakur	Advanced Transformed coding for Efficient Image and Video Compression : A Quantitative Approach	2019	Dr. Kavita Thakur
8.	Mohua Singh	Theoretical studies on the transient behavior of pulsed electroluminescence of small molecule fluorescent organic light emitting diodes	2020	Dr. Sanjay Tiwari
9.	Anil Kumar verma	Modeling and Fabrication of Bulk Hetero-Junction (BHJ) Organic Solar Cells	2020	Dr. Sanjay Tiwari
10.	Yogesh Kumar Dongre	Development of Lead-free Organic-Inorganic Tin Halide Perovskites Solar Cell for Photovoltaic Applications RDC letter No. 5536/Acad/Ph.D./2017 dated 01/01/2018	Oct. 2016	Dr. Sanjay Tiwari
11.	Sunandan Mandal	Machine Learning Approaches For Electroencephalogram (EEG) Based Brain Computer Interface (BCI): Applications In Cognitive State Classification, RDC letter No. 5536/Acad/Ph.D./2017 dated 01/01/2018	Oct. 2016	Dr. Kavita Thakur
12.	Naman Shukla	Investigations on Device Modeling, Design and Characterization of High Performance Organic and Hybrid Perovskite Solar Cells RDC letter No. 2107/Acad/Ph.D./2020 dated 04/02/2020	Jan. 2018	Dr. Sanjay Tiwari
13.	Gajendra Singh Rathore	Modeling, Simulation & Implementation of PV-battery Energy Storage Based System RDC letter No. 2107/Acad/Ph.D./2020 dated 04/02/2020	Dec. 2018	Dr. Sanjay Tiwari
14.	B. Gopal Krishna	Design And Development Of Efficient, Low-Cost And Stable Hybrid Perovskite Solar Cells RDC letter No. 2107/Acad/Ph.D./2020 dated 04/02/2020	Sep. 2018	Dr. Sanjay Tiwari

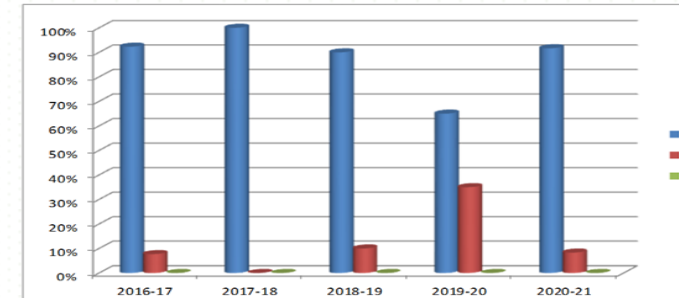
Books and Chapters Published

S. No.	Name of the teacher	Title of the paper	Year of publication	Name of the publisher
1.	Dr. Sanjay Tiwari	Optimization of Bulk heterojunction Organic Photovoltaic Devices	2017	Springer Nature, Cham, Print
2.	Dr. Sanjay Tiwari	Fabrication and Characterization of CdSe Quantum Dot-Sensitized Solar Cells by Successive Ionic Layer Adsorption and Reaction (SILAR) Process	2016	Optical Society of America Publishing
3.	Dr. Sanjay Tiwari	Optoelectronic Simulation for Light enhancement of P3HT:PC70BM Conventional BHJ OSCs	2016	Optical Society of America Publishing
4.	Dr. Sanjay Tiwari	Fabrication and Characterization of nanoporous TiO ₂ layer on photoanode by using Doctor Blade Method for dye-sensitized solar cells	2016	Optical Society of America Publishing
5.	Dr. Sanjay Tiwari	Highly sensitive TiO ₂ thin film matrix biosensor for glucose detection in blood	2016	Springer Nature, Cham, Print
6.	Dr. Kavita Thakur	Perceptive Performance Analysis of Discrete Orthogonal Cosine Stockwell Transform for Low Bit-Rate Image Compression, Vikrant Singh Thakur, Shubhrata Gupta, Kavita Thakur	2016	St Peter's Engineering college, Dullapally, Hyderabad, Telangana, India
7.	Dr. Kavita Thakur	Optimal Quantization Table Generation for Efficient Satellite Image Compression Using Teaching Learning Based Optimization Technique. Vikrant Singh Thakur, Shubhrata Gupta, Kavita Thakur	2017	IEEE Explore
8.	Dr. Sanjay Tiwari	Advances in polymer based photovoltaic cells: Review of pioneering Materials, Design and Device Physics	2017	Springer Nature, Cham, Print
9.	Dr. Sanjay Tiwari	Quantum Dot as Light Harvester Nanocrystals for Solar Cell Applications	2017	Materials Research Forum LLC, Millersville, PA.
10.	Dr. Sanjay Tiwari	Advancement in Simulation & Modeling of Organic Solar Cells	2017	Materials Research Forum LLC, Millersville, PA.
11.	Dr. Sanjay Tiwari	Recent Advances in Polymer Solar Cells	2017	Materials Research Forum LLC, Millersville, PA.
12.	Dr. Sanjay Tiwari	Fill factor analysis of organic solar cell	2017	Materials Research Forum LLC, Millersville, PA.
13.	Dr. Sanjay Tiwari	Efficiency rise in PCDTBT:PC70BM organic solar cell using interface additive	2017	Materials Research Forum LLC, Millersville, PA.
14.	Dr. Sanjay Tiwari	Status and Potential of Organic Solar Cells	2017	Materials Research Forum LLC, Millersville, PA.
15.	Dr. Sanjay Tiwari	Analytical study of current density-voltage relation in dye-sensitized solar cells using equivalent circuit model	2017	IEEE
16.	Dr. Sanjay Tiwari	Recent Advances & Perspectives in Electron Transport Layer of Organic Solar Cells for Efficient Solar Energy Harvesting,	2017	IEEE
17.	Dr. Sanjay Tiwari	Solution Processed Solar Cells based on in-situ synthesis of CdSe Quantum Dots	2017	IEEE
18.	Dr. Kavita Thakur	Book Chapter : High-Quality Medical Image Compression using Discrete Orthogonal Cosine Stockwell Transform and Optimal Integer Bit Allocated Quantization Vikrant Singh Thakur, Dr Kavita Thakur, Dr Shubhrata Gupta	2017	Springer International Publishing AG 2017, A. Ghosh et al. (Eds.)
19.	Dr. Kavita Thakur	High-Quality Medical Image Compression using Discrete Orthogonal Cosine Stockwell Transform and Optimal Integer Bit Allocated Quantization, Vikrant Singh Thakur, Dr Kavita Thakur, Dr Shubhrata Gupta	2017	Hyderabad, India, Springer publication,
20.	Dr. Sanjay Tiwari	Next Generation Solar Power Technology Part 1 & Part 2	2018	EFY Enterprises Pvt Ltd
21.	Dr. Sanjay Tiwari	Optical optimization of thin film polymer solar cells.	2020	Springer Nature,
22.	Dr. Kavita Thakur	Chapter-Social Impact of Biometric Technology: Myth and Implications of Biometrics, Issues and Challenges, Authors : Dr Kavita Thakur and Dr Prafulla Vyas	2019	Springer Nature, Cham, Print
23.	Dr. Kavita Thakur	Determination of hormonal changes during a menstrual cycle in females using speech signal analysis, Kavita Thakur & Anjali Deshpande	2019	School of Physical Sciences, Ravenshaw University, Odisha
24.	Dr. Sanjay Tiwari	Perovskite Solar Cells: A Review of Architecture, Processing methods and future prospects	2021	Woodhead Publishing Series in Composites Science and Engineering
25.	Dr. Sanjay Tiwari	Optical Optimization of Thin-film Polymer Solar Cells	2020	IEEE
26.	Dr. Kavita Thakur	Book Chapter- Classification and Characteristics of sensors	2020	IOP Science, Bristol, UK
27.	Dr. Kavita Thakur	Book Chapter: Comparative investigation of different classification techniques for Epilepsy Detection using EEG signals. Pp 413-422. Authors: Sanjay Tiwari, Manish Kumar, Nishu Thakur, Kavita Thakur	2020	Springer Nature Singapore

Project (Ongoing / Completed)

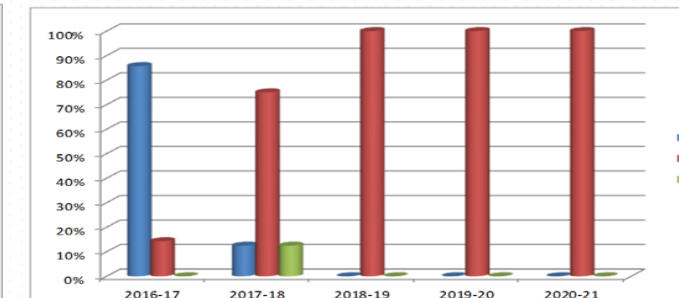
S. No.	Investigator	Project Title	Funding Agency	Funding Amt(INR)	Period
1	Dr. Kavita Thakur	Development and Implementation of software based Automatic Heart Monitoring System through Speech Signal Analysis	CCOST, Raipur	5.00 lacs	2016-2018
2	Dr. Sanjay Tiwari	Simulation, Fabrication and characterization of BHJ Inverted Organic Photovoltaic Cells	Indo Nano User Program IIT Bombay		2016-2017
3	Dr. Sanjay Tiwari	Development of Highly Efficient CdTe/CdS Tandem Multijunction Photovoltaic System Through Optimization of Various Components	SERB-DST, New Delhi	34.9 Lakhs	2017-2020
4	Dr. Sanjay Tiwari	Development of High Performance Lead free Sn based Perovskite Solar cell	SERB-DST, New Delhi	34.9 Lakhs	2021-2022
5	Dr. Sanjay Tiwari	Solar Power Ultraviolet Disinfectant for Novel Corona Virus	Chhattisgarh council of Science and Technology (CCOST), Raipur	3.4 Lakhs	2021-2022

M. Sc. Electronics



DIVERSITY OF STUDENTS

M. Tech. OELT



A- Total Students Entrolled in 1st Semester from Same University
 B- Total Students Entrolled in 1st Semester from other University of CG
 C- Total Students Entrolled in 1st Semester from Other State

Total number of Awards / Recognitions received

Year	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021
Number	04	03	01	05	01

Publications 2016-21

Parameter	Numbers
Number of Papers Published in Peer Reviewed	39
Books with ISBN and Chapters in Book	27

Number of seats available year wise during the last five years

Year	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021
Application Received	27	39	46	59	44
Admitted	22	26	29	27	30
Number MSc_I+MTech_I+PhD	20+22+8= 50	20+22+11= 53	20+22+12= 54	20+22+10= 52	24+22+11= 57

Number of actual students admitted from the reserved categories year-wise during the last five years

Year	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021
Number	14	19	20	21	24
Allotted	29	30	31	30	33

Journal Publication

S. No.	Title of paper	Name of the author/s	Name of journal	Year of publication
1.	SrS: Ce 3+ thin films for electroluminescence device applications deposited by electron-beam evaporation deposition method	S Mishra, DS Kshatri, A Khare, S Tiwari, PK Dwivedi	Materials Letters	2016
2.	Nanocrystalline SrS: Ce3+ system for the generation of white light emitting diodes	S Mishra, DS Kshatri, A Khare, S Tiwari	Luminescence	2016
3.	Optical Properties of Rare Earth Doped SrS Phosphor: A Review	A Khare, S Mishra, DS Kshatri, S Tiwari	Journal of Electronic Materials	2016
4.	Directional Fuzzy Edge detection based on Modified Edge Regeneration system for efficient JPEG Artifacts Reduction	Vikrant Singh Thakur, Dr Kavita Thakur, Dr Shubhrata Gupta	Journal of Ravishankar University, Part B (Science)	2016
5.	Diminution in photoluminescent intensity of SrS: Ce 3+ phosphor due to increased milling time	S Mishra, A Khare, S Tiwari, DS Kshatri	Journal of Alloys and Compounds	2017
6.	Enhanced Photovoltaic Performance via Co-sensitization of Ruthenium (II)-Based Complex Sensitizers with Metal-Free Indoline Dye in Dye-Sensitized Solar Cells	S Tiwari Swati Sahu, Mohan Patel, Anil Kumar Verma, Surya Prakash Singh	Organic Photonics and Photovoltaics	2017
7.	Fabrication, characterization and electroluminescence studies of SrS: Ce 3+ ACTFEL device	S Mishra, DS Kshatri, A Khare, S Tiwari, PK Dwivedi	Materials Letters	2017
8.	Enhanced Photovoltaic Performance of Dye-Sensitized Solar Cells via Sensitization of Nanocrystalline TiO Films with Metal-Free Indoline Dye	Swati Sahu, Rajesh Awasthy, Mohan Patel, Anil Verma, Sanjay Tiwari	Journal of Ravishankar University, Part B (Science)	2017
9.	A Low Cost Efficient Model for Automatic Barricading of Unmanned Railroad Level Crossings	S Tiwari	International Journal of Computer Applications	2018
10.	Future Challenges of Cloud Computing	Tanuj Tiwari, Tanya Tiwari, Sanjay Tiwari and Shikha Tiwari	European Journal of Advances in Engineering and Technology	2018
11.	Wi-Fi Security System Based on Innovative Technology	Tanuj Tiwari, Tanya Tiwari, Sanjay Tiwari	American Journal of Computer Science and Engineering	2018
12.	Hybrid WPT-DCT Transform for High-Quality Image Compression	Vikrant Singh Thakur, Dr Shubrata Gupta, Dr Kavita Thakur	IET Image Processing	2017
13.	Optimum JPEG Quantization Table Generation for High Quality Image Compression Using Multi-objective Evolutionary Optimization Based on Decomposition	Vikrant Singh Thakur, Kavita Thakur, Shubhrata Gupta	International Journal of Electronics, Electrical and Computational System (IJECS)	2017
14.	Research Impact of Astronomical Image Processing	G R Sinha, Kavita Thakur, Prafulla Vyas	International Journal of Luminescence and Applications,	2017
15.	Image Processing Techniques for Remote Sensing Applications	G R Sinha, Kavita Thakur	International Journal of Luminescence and Applications,	2017
16.	Efficient SEM Image Compression for High-Quality Reproduction of Nanomaterials Images using lapped Biorthogonal Transform and Block Variance Classified Variable Rate Quantization	Vikrant Singh Thakur, Kavita Thakur, Shubhrata Gupta	International Journal of Luminescence and Applications,	2017
17.	A Heart Speech Model based on Correlation between Heart Parameters and Speech Features extracted from Speech Signal analysis	Kavita Thakur, Anjali Deshpande	International Journal of Luminescence and Applications,	2017
18.	Gradient Feature Based Improved Optimum Non-Negative Integer Bit Allocation for the DCT Based Coding.	Vikrant Singh Thakur, Shubhrata Gupta, Kavita Thakur, K S Rao	International Journal of Networks and Systems (IJNS)	2018
19.	Two Channel EEG Classification of Imagined Speech Brain Waves Using Machine Learning Technique	Sunandan Mandal, Kavita Thakur, Bikesh Kumar Singh and Heera Ram	International Journal of Current Engineering and Scientific Research	2019
20.	Efficient SEM Image Compression using Hybrid DWT-DCT Transform with Embedded Zero-Tree Coding	Vikrant Singh Thakur, Kavita Thakur, Shubhrata Gupta	International Journal of Current Engineering and Scientific Research	2019

Journal Publication

S. No.	Title of paper	Name of the author/s	Name of journal	Year of publication
21.	Improved Optimum Nonnegative Bit Allocation Algorithm using Fuzzy Domain Variance Estimation and Refinement for the Wavelet-Based Compression	Vikrant Singh Thakur, Kavita Thakur, Shubhrata Gupta, K R Rao	Circuits, Systems, and Signal Processing – Springer (on line),	2019
22.	Need of Automated System for Climatic Control and Irrigation	P. Vyas, K. Thakur	Journal of Microcontroller Engineering and Applications (JoMEA)	2019
23.	A review on perovskite solar cells: Evolution of architecture, fabrication techniques, commercialization issues and status	Priyanka Roy Numeshwar Kumar Sinha Sanjay Tiwari Ayush Khare	Solar Energy	2020
24.	Recent Progress in Organic Light-Emitting Diodes	S Tiwari M Singh A K Shrivastav	Journal of Nanoelectronics and Optoelectronics	2019
25.	Theoretical Approach to ITO/PVK/Dye/Inga Organic Light Emitting Diodes for Different Thickness of PVK Layer	Mohua Singh, A. K. Shrivastav, Sanjay Tiwari	Journal of Advanced Research in Physical Science	2019
26.	Image-Independent Optimal Non-negative Integer Bit Allocation Technique for the DCT based Image Transform Coders.	Vikrant Singh Thakur, Kavita Thakur, Shubhrata Gupta, Kamisetty R. Rao	IET Image Processing	2019
27.	A new hybrid post filtering technique for efficient JPEG artifacts reduction	Kavita Thakur, Vikrant Singh Thakur and Shubhrata Gupta	Grenze International Journal of Engineering and Technology, Special	2020
28.	Grayscale Based Spectral Information of EEG Signals for Classification of Epileptic Seizure	S. Mandal, K. Thakur, B.K. Singh	Alochana Chakra Journal (International)	2020
29.	Performance evaluation of spectrogram based epilepsy detection techniques using gray scale features	Sunandan Mandal, Kavita Thakur, Bikesh Kumar Singh, Heera Ram	Journal of Ravishankar University, Part B (Science)	2020
30.	Artificial intelligence based classification of schizophrenia: A high density Electroencephalographic and support vector machine study.	Sai Krishna Tikka, Bikesh Kumar Singh, S. Haque Nizamie, Shobit Garg, Sunandan Mandal, Kavita Thakur, Lokesh Kumar Singh	Indian Journal of Psychiatry	2020
31.	Perovskite Solar Cells an Efficient, Low Cost, Emerging Photovoltaic Technology	Yogesh Kumar Dongre* and Sanjay Tiwari	Journal of Ravishankar Shukla University, Part B (Science)	2020
32.	Preparation, Fabrication and Characterization of Sol-Gel ZnO Thin Films for Organic Solar Cells	Sanjay Tiwari Anil Kumar Verma, Swati Sahu, Mohan Patel	Journal of Ravishankar University (Part-B: Science)	2020
33.	Effect of the morphology with ZnO ETL and MoO3 HTL with varying PCDTBT: PC70BM solvent on the performance of BHJ Organic Solar Cells	Shukla N and Tiwari S Verma AK	Nanomaterials and Energy	2020
34.	Majority voting based hybrid feature selection in machine learning paradigm for epilepsy detection using EEG	Sunandan Mandal, Bikesh Kumar Singh, Kavita Thakur	International Journal of Computational Vision and Robotics (IJCVR), Inderscience Publisher	2021
35.	An improved symbol reduction based Huffman coder for efficient entropy coding in the transform coder.	Vikrant Singh Thakur, Kavita Thakur, Shubhrata Gupta	IET Image Processing (Wiley)	2020
36.	Classification of working memory loads using hybrid EEG and fNIRS in machine learning paradigm	Sunandan Mandal, Kavita Thakur, Bikesh Singh	IET Electronics Letters	2020
37.	Higher order statistics based blind steganalysis using deep learning	S. Bera, K. Thakur, P Vyas, T Dua	Journal of Ravishankar Shukla University, Part B (Science)	2021
38.	Modeling of Abnormal Hysteresis in CsPbBr3 based Perovskite Solar Cells	B Gopal Krishna; Sanjay Tiwari	Journal of Ravishankar Shukla University, Part B (Science)	2021
39.	Various Techniques of MPPT Based Charge Controller & Comparison of A/C with D/C Home Appliances - A Review	Gajendra Singh Rathore; B. Gopal Krishna; R.N. Patel; Sanjay Tiwari	Journal of Ravishankar Shukla University, Part B (Science)	2021