

List of students who carried out project work at RRCAT during 2017 - 18

Sr.No	Student Name	Project Title	University/ Institute	Place
1	Mr Amrendra Kumar	Synthesis and characterization of polymer based BiSmFeO ₃ multiferroic nano composite films	Barkatullah University Institute of Technology	Bhopal
2	Ms Gaurav Rajak	Composite carbon aerogel synthesis with carbon additives and characterizations	Barkatullah University Institute of Technology	Bhopal
3	Mr Pushendra Kumar Dwivedi	Studies on enhancement of surface defect tolerance of SAE 9260 spring steel by laser shock peening with respect to its fatigue performance	Barkatullah University Institute of Technology	Bhopal
4	Mr Swati Maravi	Studies on effect of laser shock peening on the fatigue life of hard chrome plated 15-5 PH stainless steel	Barkatullah University Institute of Technology	Bhopal
5	Mr Ranvir Kumar Deo	Investigation of upconversion luminescence in Yb ³⁺ /Tb ³⁺ : LaF ₃ nanophosphor	Barkatullah University Institute of Technology	Bhopal
6	Mr Sheeza Khan	Transparent ceramics (development and characterization)	Barkatullah University Institute of Technology	Bhopal
7	Mr Chandra Pratap Patel	Growth of Ce doped Gadolinium Gallium Aluminium Garnet single crystal by optical floating zone technique	Barkatullah University Institute of Technology	Bhopal
8	Mr Vikash Kumar	Pyroelectric response of LiTaO ₃ single crystals based laser energy sensor	Barkatullah University Institute of Technology	Bhopal
9	Ms Shyamily Balakrishnan	Straightness measurement and optical wedge angle measurement using phase shifting interferometry	Cochin University of Science And Technology	Kochi
10	Mr Mashboob C M	Hybrid organic-inorganic metal halide perovskite solar cell - active characterization and device fabrication material	Cochin University of Science And Technology	Kochi
11	Ms Aditi Chaturvedi	Molecular studies of insecticidal proteins	Banasthali Vidyapeeth	Rajasthan
12	Ms Ritulika Ghosh Dastidar	Development of segmentation based algorithms for enhanced demarcation of optically different regions in spectral images of biological samples	Homi Bhabha National Institute	
13	Ms Srishti Sharma	Development of VHDL modules for beam slit monitor	Banasthali University	Banasthali
14	Ms Neha Gour	Reducing computational complexity of mathematical functions using FPGA	Banasthali University	Banasthali
15	Mr Ayush Bansal	Resonator analysis under 808 NM and 880 NM pumping to design a ring cavity for single frequency operation	Sardar Vallabhbhai National Institute of Technology	Surat
16	Mr Manish Kumar Verma	Design, modeling & analysis of vacuum chamber for high energy high power plasma laser	Shri Govindramseksaria Institute of Technology And Science	Indore
17	Mr Ketan Lohani	Structural, magnetic and spectroscopic study of nickel-ferrite (Ni _{1.5} Fe _{1.5} O ₄) nanoparticles	Central University of Haryana	Mahendergarh
18	Ms Kiran Kumari	Carbon based electrode material for supercapacitor	Central University of Haryana	Mahendergarh
19	Ms Priya	Electronic properties of thermoelectric transition metal silicides	Central University of Haryana	Mahendergarh
20	Mr Alif Laila M	Fabrication, characterization of metamaterials	Cochin University of Science And Technology	Kochi
21	Ms Harshit Shah	3-D simulation of electromagnetic filter and transformer	Mukesh Patel School of Technology Management & Engineering	Mumbai
22	Ms Akhila K J	The influence of post annealing on magneto-structural properties of quaternary FeCoNbB alloy thin films	Cochin University of Science And Technology	Kochi
23	Mr Heenaben Darji	Role of surface & interface state of GaAs/Si photodetector	SVNIT	Surat
24	Ms Sudhanshu Bhushan Sharma	Development and characterization of narrow linewidth all-fiber amplifier	Devi Ahilya Vishwavidyalaya	Indore
25	Ms Prabeen Kumar Pattnayak	Analytical study on high speed cryogenic turboexpander for helium liquefier	Deemed University	Pune
26	Mr Srikanta Panda	Analytical and experimental studies on cryogenic plate fin heat exchanger for helium liquefier	Deemed University	Pune
27	Ms Akhilesh Kumar Yadav	Design and development of a temperature controlled closed chamber and measurement of temperature drift of the circuit using TMS320F28069M microcontroller	National Institute of Technology	Kurukshetra
28	Mr Akshaya Ranjan Mishra	Development of controller and electrometer for wire beam position monitor along with its control GUI	Devi Ahilya Vishwavidyalaya	Indore
29	Ms Ritika Agrawal	Synthesis and application of plasmonic nanoparticles and their composites with semiconductor nanostructures	Devi Ahilya Vishwavidyalaya	Indore
30	Mr Jayesh J Nair	Development of a high gain multipass Nd:YLF preamplifier for high energy laser system	Cochin University of Science And Technology	Kochi
31	Mr Sidhi G Ramer	Development of stress compensated thin films for lithographic applications	Cochin University of Science And Technology	Kochi
32	Mr Sushant Mahajan	Automation of a V-Fold diffusion cooled CO ₂ laser system & RF excited fast axial flow CO ₂ laser system with RF leakage reduction	Devi Ahilya Vishwavidyalaya	Indore
33	Mr Mintu Yadav	Cross polarization enhanced digital image correlation for determination of thermal expansion	Central University of Haryana	Mahendergarh
34	Ms Antima Yadav	Development of pulse demagnetizer system for permanent magnets	Devi Ahilya Vishwavidyalaya	Indore
35	Ms Pradeep Bunkar	5-circle diffractometer, 1D and TetrAMM picoammeter interfacing in spec through epics for X-ray reflectivity and X-ray absorption measurement	Devi Ahilya Vishwavidyalaya	Indore
36	Mr Jyoti Yadav	Studies on structural and optical properties of chromium oxide thin film	Central University of Haryana	Mahendergarh
37	Mr Ruchita Patel	Design and development of bender machine for the fabrication of toroidal mirror for X-ray applications	Rajiv Gandhi Proudयोगiki Vishwavidyalaya	Bhopal
38	Mr Aishwarya Chouhan	Development of Labview based automated image acquisition software for imaging beamline	Devi Ahilya Vishwavidyalaya	Indore
39	Ms Shruti Banait	Investigating laser additive manufacturing of functionally graded Ni-Cr-B-Si and SS 316L	Dr. Babasaheb Ambedkar Technological University	Lonere
40	Ms Aarathy E R	Development of symmetric and asymmetric waveguide laser diode arrays	Devi Ahilya Vishwavidyalaya	Indore
41	Ms Rupal Agarwal	Electrochemical corrosion studies of carbon aerogels synthesized under different conditions	Institute For Excellence In Higher Education	Bhopal
42	Ms Akshay. K	Studies on optical and structural properties of zinc oxide nanostructures grown by vapour phase transport	Cochin University of Science And Technology	Kochi
43	Ms Nitesh Baretha	Synthesis of carbon aerogel based electrodes for electrochemical supercapacitors and evaluation	Institute For Excellence In Higher Education	Bhopal
44	Ms Konika Bhowmik	Studies on structural and optical properties of zinc oxide nanostructures grown by wet chemical method	Dr. C.V. Raman University	Kota, Bilaspur
45	Mr Abhijeet Yadav	Impedance Spectroscopy of photovoltaic materials	Pt. Ravishankar Shukla University	Raipur (C.G.)
46	Ms Deepika Tanwar	Corrosion inhibition of mild steel in acidic medium and its kinetic and thermodynamic study	Govt. Autonomous Holkar Science College	Indore
47	Mr Sreerag. C. T	Characterization of in-house developed heat-pipe for laser spectroscopy	Cochin University of Science And Technology	Cochin
48	Ms Nilima Sinha	Time resolved reflectivity studies of semiconductor and their nanostructures using circularly polarized pump and probe pulse	Pt. Ravishankar Shukla University	Raipur (C.G.)
49	Mr Anupam Shukla	Study of pulse transformer and topology for high voltage application	Jabalpur Engineering College	Jabalpur, M.P.
50	Ms Aanchal Shrotriya	Analysis of physical, growth and oxidative stress parameters in common bean seeds exposed to synchrotron X-ray beam	Devi Ahilya Vishwavidyalaya	Indore
51	Ms Radhika Sharma	Study of weld joint of different material and its correlation with penetration and distortion	Shri. GovindramSeksaria Institute of Technology and Science (SGSITS)	Indore
52	Mr Rahul Rathi	Effect of particle size on the thermo-luminescence properties of Cerium doped Lithium Tetra Borate (Ce:Li ₂ B ₄ O ₇) polycrystalline pellets under low and high dose of X-ray irradiation	Indian Institute of Technology (Indian School of Mines)	Dhanbad, Jharkhand
53	Ms Nidhi Patle	Automation and control of LEBT power supplies and peripherals for proton accelerator application	National Institute of Technology	Patna (Bihar)
54	Ms Monika Pandey	Study and analysis of RF distribution system for particle accelerator	Rajiv Gandhi Proudयोगiki Vishwavidyalaya	Bhopal (M.P.)
55	Mr Arjun Kurur	A study of frequency stabilized narrow linewidth NPRO laser	Cochin University of Science And Technology	Cochin
56	Mr Aakil Khan	FPGA based high speed data acquisition system with ethernet interface for ion source applications	Rajiv Gandhi Proudयोगiki Vishwavidyalaya	Bhopal (M.P.)
57	Mr Anas Ullah Khan	Design and fabrication of one-dimensional vertical comb-drive microactuator by UV SLIGA	Shri. Govindram Seksaria Institute of Technology and Science (SGSITS)	Indore
58	Ms Prema Khalkho	Design and simulation of bridge controller for microtron control system distributed architecture	Maulana Azad National Institute of Technology	Bhopal (M.P.)
59	Mr Pankaj Karma	Studies for forming process of various parts of superconducting radio frequency cavity	Shri Govindram Seksaria Institute of Technology and Science	Indore
60	Mr Santosh Kalita	Synthesis of N-Doped TiO ₂ nanoparticles using CO ₂ laser based Gas Pyrolysis Technique for solar water splitting	National Institute of Technology	Kurukshetra
61	Mr Denny John	Fatigue behaviour of Inconel 718 and Hastelloy-X fabricated by laser additive manufacturing using direct energy deposition	National Institute of Technology	Warangal
62	Mr Harsh jaiswal	Design of cryostat for tensile testing of material at low temperature	Shri GovindramSeksaria Institute of Technology and Science (SGSITS)	Indore
63	Mr Krishna Veer Singh Gurjar	Design and fabrication of MEMS based Triaxial Electrostatic Accelerometer by UV SLIGA	Shri GovindramSeksaria Institute of Technology and Science (SGSITS)	Indore
64	Mr Abhishek Gupta	Optimization of process parameters for deposition of tin powder particles in low pressure supersonic flow additive manufacturing process	Rajiv Gandhi Proudयोगiki Vishwavidyalaya	Bhopal (M.P.)
65	Mr Neal Adam Deunha	Automation and modeling of a V-Fold diffusion cooled CO ₂ laser and study of a Carbon Monoxide Laser	Anna University	Chennai
66	Mr Mohit Kumar Dashore	Design and analysis of strongback cavity support system for Beta 0.61, 650 MHz cryomodule	Shri Govindram Seksaria Institute of Technology and Science	Indore
67	Ms Priya Chourasia	Designing of digital filter for RF system	Rajiv Gandhi Proudयोगiki Vishwavidyalaya	Bhopal (M.P.)
68	Mr Sunil Chouhan	Influence of UV irradiation on corrosion behavior of 304L SS in 0.1M H ₂ SO ₄ and 0.5M NaCl	Devi Ahilya Vishwavidyalaya	Indore
69	Mr Hemendra Chouhan	Epitaxial growth of Gallium Nitride using metal organic vapor phase epitaxy	Devi Ahilya Vishwavidyalaya	Indore