

List of students who carried out project work at RRCAT during 2016 - 17

Sr.No	Student Name	Project Title	University/ Institute	Place
1	Mr Venu V Achuth	Temperature dependent carrier dynamics in semiconductors using pump-probe technique	Cochin University of Science and Technology	Kochi,Kerala
2	Ms S Anand Anamika	Effect of Y/Al ratio on optical and micro-structural properties of neodymium (Nd) doped Y ₃ Al ₅ O ₁₂ : a laser-host transparent ceramic	University of Kerala	Thiruvananthapuram
3	Mr Ashik A S	Imaging refractive index distribution of optical crystals and ceramics using shadowgraphy, schlieren and interferometry techniques, and quantifying it using numerical methods implemented in MATLAB	University of Kerala	Thiruvananthapuram
4	Mr Priyanshu Dhara	Development of framework for probabilistic safety analysis of radiation safety systems for industrial electron accelerator	Homi Bhabha National Institute	
5	Mr Vivek Singh	Study of open source hardware and software platform for the beam position measurement for electron accelerator	Jabalpur Engineering College	Jabalpur
6	Mr Himanshu Singh	Eletro-polishing analysis of superconducting radio frequency cavity(1 Cell, 5 Cell & 9 Cell)	National Institute of Technology	Durgapur
7	Mr Ankit Tiwari	Design optimization of strong-back support system for 650 MHz SCRF cavity cryomodule	Homi Bhabha National Institute	
8	Mr Bhusahan Kumar Dharmik	Testing of electron beam welded joints for superconducting radiofrequency cavity as per ASME section IX	Government College of Engineering	Karad
9	Ms Kajal Jain	Study and prototype development of pulse selector magnet power supply for linear accelerator (LINAC)	Mody University of Science & Technology	Lakshmangarh, Rajasthan
10	Mr Kuldeep Mandloi	Design and analysis of 70K thermal shields for bottom supported 650 MHz cryomodule and its evaluation on prototype at cryogenic temperature	National Institute of Technology	Durgapur
11	Ms Sayali Dilip Kedar	Study and development of a DAS on 32 bit ARM cortex processor for X-ray detectors	K. J. Somaiya College of Engineering	Mumbai
12	Ms Sudha Gupta	Simultaneous measurements of shock velocity in Al/Cu step targets	Devi Ahilya Vishwavidhyalaya	Indore
13	Ms Akanksha Jain	Study of the marx modulator	Rajiv Gandhi Proudoyogiki Vishwavidyalaya	Bhopal
14	Ms R. Saraswathi	3D magnetic field mapping using FPGA	Shanmugha Arts, Science, Technology & Research Academy	Tirumalaisamudram, Thanjavur
15	Mr Rahul Kumar	Process feasibility of low pressure non thermal supersonic additive manufacturing	Manipal University	Jaipur
16	Mr Pandurang Suresh Mulik	To establish the copper to copper brazing process for particle accelerator components	Government College of Engineering	Karad
17	Mr Sunchu Ganesh	Single and two-step optogalvanic effects in in-house developed air-cooled (Li/Ne) Hollow cathode discharge lamp	Government College of Engineering	Karad
18	Ms Vandana	Development and testing of FPGA based motion control and signal processing modules for beam diagnostics system	Banasthali University	Banasthali
19	Ms Shiwangi Saini	Study on development of high voltage capacitor charging power supply for pulse TEA CO ₂ laser	Rajiv Gandhi Proudoyogiki Vishwavidyalaya	Bhopal
20	Mr M. P. Sarath	Spectroscopic studies on cold krypton atoms	Cochin University of Science and Technology	Kochi, Kerala
21	Ms Surbhi Sharma	FPGA based embedded system design for plasma diagnostics	Banasthali University	Banasthali
22	Ms Akansha Trivedi	PLC based interlock for microwave systems	Banasthali University	Banasthali
23	Mr Abhas Jain	Implementation of ethernet support and in-application programmable storage on VME based boards	Devi Ahilya Vishwavidhyalaya	Indore
24	Ms Kinnari Jain	Software interface for a smart phone based hardware control of a stand-alone fluorescence imaging tool	Institute of Technology, Nirma University	Ahmedabad
25	Ms Hemashri Muguli	kHz linewidth measurement of non-planar ring oscillator laser	MIT, Manipal University	Manipal
26	Mr S Surjith	Studies on gain narrowing in a ND:Glass regenerative amplifier & its compensation using birefringent filter	Cochin University of Science and Technology	Cochin
27	Ms Avnee Chauhan	Studies on nano phosphor materials to enhance the efficiency of amorphous solar cell	Amity University	Noida, Uttar Pradesh
28	Mr Sanjay Dewangan	Study of converter type long pulse modulator for klystron	Government Engineering College	Jabalpur
29	Ms P I Samina	Studies on Fe-based magneto-optical alloys	Cochin University of Science and Technology Cochin	Cochin
30	Mr Choorakuttil Ashwin Jose Xavier	Surface magneto-optical trap for Rb atoms: optimization studies	MIT, Manipal University	Manipal
31	Mr Udit Kumar Dewangan	Soft x-ray harmonics analysis using multilayer technique	Pt. Ravishankar Shukla University	Raipur (C.G.)
32	Mr Vikash Kumar	Investigations on selective unit-cell-based architectures for additive manufacturing of porous structures	Indian Institute of Technology (Indian School of Mines)	Dhanbad, Jharkhand
33	Mr Lohar Jeevan Shantinath	Study of mechanical structure of spoke resonator related to microphonics, lorentz force detuning and elastic tuning	Rajarambapu Institute of Technology	Rajaramnagar
34	Ms Rupa Patel	Measurement of surface form error and surface profiles of optics for lasers and x-rays	Pt. Ravishankar Shukla University	Raipur (C.G.)
35	Ms Neha Bharti	Development of web server for accessing parameters of front end	Amity University	Gwalior, Madhya Pradesh
36	Mr Rahul Raj Khare	Study of electrode patterns for the development of piezoelectric stages	Indian Institute of Technology	Indore, M.P.
37	Mr Alok Mishra	Development of self-heterodyne based detection system for laser linewidth measurement	Defence Institute of Advanced Technology	Pune
38	Mr Sitanshu kumar Sarangi	Cloning and purification of XPNPEP2 and purification and crystallization of Icp55 homologs	Ravenshaw University	Cuttack
39	Ms Priya Chourasiya	Development of control system for copper vapour laser system	Jabalpur Engineering College	Jabalpur(M.P.)
40	Ms Stiti Prangya Dash	Purification, Crystallization and X-ray diffraction of recombinant protein S16xc and engineered protein Timce1	Ravenshaw University	Cuttack
41	Mr Milind Doiphode	Optimization of cooling scheme for 10 MeV electron linear accelerator (LINAC)	Rajarambapu Institute of Technology	Rajaramnagar
42	Mr Sachin Rishishwar	Development of control & data acquisition software for low level RF (LLRF) systme of RRCAT vertical test stand	Amity University	Gwalior, MadhyaPradesh
43	Ms Sonal Chandrakar	Studies on structural and optical properties of nickel oxide thin films	Pt. Ravishankar Shukla University	Raipur(C.G.)
44	Ms Deepika Jeswani	Crystallization, X-ray diffraction and molecular dynamics of Spt16N proteins	Devi Ahilyabai Vishwavidhyalaya	Indore
45	Mr Shikha Jha	Numerical study of 'inverse compton scattering' through laser produced plasmas	Pt. Ravishankar Shukla University	Raipur(C.G.)
46	Ms Anita Tiwari	Growth of silver nanostructured LB films for surface enhanced Raman spectroscopy of semiconductor nanostructures	Pt. Ravishankar Shukla University	Raipur(C.G.)
47	Ms Anshi Bansal	Development of particle image Velocimetry algorithm for fluid flow and its implementation using graphical processing unit (GPU)	Amity University	Gwalior, MadhyaPradesh
48	Mr Gowtham Beera	Fabrication of electrostatic micromotor using UV lithography	National Institute Of Technology	Warangal
49	Ms Jyoti Bhadouria	Programmable current/voltage output source	Amity University	Gwalior, MadhyaPradesh
50	Ms Kritika Bhardwaj	Design and development of FPGA based digital controller for magnet power supplies	Shri G. S. Institute of Technology and Science	Indore
51	Mr Atharv Bhaskar	Development of flaw detection techniques in non destructive testing using GPU	Shri G. S. Institute of Technology and Science	Indore
52	Ms Samridhhi Bhutani	X-ray diffraction image processing at CCD detector of PX-beamline at Indus-2 synchrotron	VIT University	Vellore
53	Ms Srishiti Chandrakar	Study on thermal effects and gain measurement in ceramic Nd:Yag laser rod	Pt. Ravishankar Shukla University	Raipur
54	Mrs Charu Chaurasia	Raman spectroscopy for detection of urea adulteration in packaged milk- an exploratory study	Devi Ahilya Vishwavidyalaya (D.A.V.V.)	Indore
55	Mr Chintulala V. S.	Study on design of reduced radius CRL its fabrication and characterization	Cochin University of Science and Technology	Cochin
56	Ms Purva Deshpande	Fabrication of quarter wave resonator by laser welding technique: planning and initial experiments	Rajiv Gandhi Proudoyogiki Vishwavidyalaya	Bhopal
57	Mr Dharmendra Kumar	Structural and optical characterization of (Gax Cr2-x)2O3 (0 < x < 0.45) and (Alx Cr1-x)2O3 (0 < x < 1)	Pt. Ravishankar Shukla University	Raipur
58	Ms Shraddha dubey	Investigations on effect of HA-Cur-Collagen Dressing on inflammation resolution and healing of wounds in diabetic mice	Devi Ahilya Vishwavidyalaya	Indore
59	Ms Priyanka Indait	Development of data acquisition and advanced algorithm for spectrometer for laser based fluorescence applications	Amity University Madhya Pradesh	Indore
60	Ms Deeksha Jachpure	Growth and investigation of borates as laser host and scintillating materials	Rajiv Gandhi Proudoyogiki Vishwavidyalaya	Indore
61	Ms Chitra Jain	Laser induced anti-bacterial effect of polyelectrolyte coated gold nanorods	Devi Ahilya Vishwavidyalaya	Indore
62	Mr Paramveer	Development of EPICS based control software for the protein crystallography beamline at Indus-2 synchrotron	Devi Ahilya Vishwavidyalaya	Indore
63	Mr Nilesh Kumar Jat	Parametric study of 1/8 th part of Indus-2 tunnel for temperature stability using CFD simulation of air handling system	SGSITS	Indore
64	Mr Jayesh Joshi	Experimental and theoretical studies on various CO ₂ laser systems	Devi Ahilya Vishwavidyalaya	Indore
65	Ms Sadia Khattak	Computer integrated design, analysis and shape optimization of proton beam dump for SNS target	Medi-Caps Institute of Technology and Management	Indore
66	Mr Koppoli Kirankumar	Studies on fiber lasers	Devi Ahilya Vishwavidyalaya	Indore
67	Mr Krishnamunni R A	Growth of lithium potassium tetra borate (LiKB ₃ O ₇) single crystal and investigate its nonlinear optical and thermoluminescence properties	University of Kerala	Kerala
68	Mr Rahul Kumar	Computational heat transfer & fluid dynamics analysis of deposition of TiO ₂ in situ using energetic jet	Rajiv Gandhi Proudoyogiki Vishwavidyalaya	Bhopal
69	Mr Sandeep Kushwaha	Synthesis and study of functional properties of orthoferrites	Rajiv Gandhi Proudoyogiki Vishwavidyalaya	Bhopal
70	Mr Sunil Kumar Meena	Development of 16-Bit, 6-Channel analog to digital converter card	Rajiv Gandhi Proudoyogiki Vishwavidyalaya	Bhopal
71	Mr Mohit Mittal	Characterization of optical fibers and grating for sensing application	Rajiv Gandhi Proudoyogiki Vishwavidyalaya	Bhopal
72	Ms Divya N Nair	Study of thermal, optical and opto-mechanical properties of indigenously developed neodymium doped phosphate laser glasses	International School of photonics, Cochin University	Cochin
73	Mr Raji B. Nair	Study on Raman spectroscopy and optical coherence tomography of formalin-fixed and paraffin-embedded (FFPE) breast tissues	Department of Optoelectronics	Kerala
74	Ms Komal Singh Panwar	Development of electronic nose for VOC detection	IET-DAVV	Indore
75	Mr Chandrabhan Patel	Simulation of thermoelectric cooler and H-bridge driver for precise temperature control applications	National Institute of Technology	Kurukshetra
76	Ms Richa Pathak	Development of a set up for induction brazing of LINAC cells.	SGSITS	Indore
77	Ms Neha Prasad	Surface treatment of 316L stainless steel for improved corrosion resistance & hydrophobicity	Devi Ahilya Vishwavidyalaya	Indore
78	Ms Dishu Purohit	Investigation of magnetic domain & local structure of MgO/Co/MgO trilayer	Pt. Ravishankar Shukla University	Raipur
79	Ms Anisha Rai	Development of transparent Nd: YAG ceramic and optical characterization	Rajiv Gandhi Proudoyogiki Vishwavidyalaya	Bhopal
80	Mr Ashwani Kumar Rai	To study the effects of high voltage coaxial cable parameters on copper vapor laser performance	Jabalpur Engineering College	Jabalpur
81	Ms Manisha Ratte	The influence of early transition metals on the structural and mechanical properties of FeCo (ETM)B alloys; ETM=Nb,Zr,Mo	Pt. Ravishankar Shukla University	Raipur
82	Ms Ankita Sahu	Parametric studies on laser additive manufacturing of graded nickel layers on copper	Manipal University	Jaipur
83	Mr Rahul Saxena	FEM based simulation of weld pool of SS316 – Kovar butt welded joint and its comparison with experimental results	Shri G. S. Institute of Technology and Science	Indore
84	Mr Shubham Saxena	Feasibility study of compact heat exchanger (CHE) using laser additive manufacturing (LAM)	National Institute of Technology	Warangal
85	Ms Ankita Shakyawar	Characterization of magnetic thin film using Magneto-Optic Kerr Effect (MOKE)	Rajiv Gandhi Proudoyogiki Vishwavidyalaya	Bhopal
86	Mr Vivek Shrivastav	A Study of advanced manufacturing technology with emphasis on laser beam welding techniques	Manipal University	Jaipur
87	Ms Neha Singh	Synthesis and Characterization of Lead based Mixed Perovskites Pb(B _x ' W _{1-x})O ₃ (B'=Fe,Co,Ni)	Rajiv Gandhi Proudoyogiki Vishwavidyalaya	Bhopal
88	Ms Ritu Singh	Effect of carbon additives on conductivity of carbon aerogel	Institute of Excellence in Higher Education	Bhopal
89	Mr Umang Singh	Parametric study of a xenon chloride excimer laser	Pt. Ravishankar Shukla University	Raipur
90	Mr Sivajith PS	Effect of silicon co-doping on the structural and optical properties of aluminum doped beta gallium oxide single crystal	University of Kerala	Kerala
91	Mr Sangeet Soman T	Development of fluorescence microscopic hyper-spectral imaging system	International School of photonics, Cochin University	Cochin
92	Mr Shivangi Soni	Investigation of photobiostimulation on cells using low level laser therapy	Government Arts and Science College	Ratlam
93	Mr Jugal Kishore Sonwani	Studies on Resistive Switching Behavior and Switching Time in Au/TiO ₂ /Pt devices grown by atomic layer deposition	Pt. Ravishankar Shukla University	Raipur
94	Mr Rahul Kumar Tale	Study and investigation of issues related to electron beam welding process simulation using computational fluid dynamics (CFD)	Shri G. S. Institute of Technology and Science	Indore
95	Mr Rahul Kumar Thakur	Synthesis and charecterization of transition metal based oxides	School of Studies in Electronics and Photonics,	Raipur
96	Ms Ruksana Ubaid	Growth and characterizations of Au/MgZnO Schottky photodiode	University of Kerala	Thiruvananthapuram, Kerala
97	Ms Ritu Verma	Structural and Dielectric porperties of (x)BiFeO ₃ -(1-x)BaTiO ₃ solid solution	Pt. Ravishankar Shukla University	Raipur
98	Mr Sushant Sharma	Development of two quadrant converter and its application in characterization of inductors	Jabalpur Engineering College	Jabalpur
99	Ms Anita Vishwakarma	Preparation and characterization of thin films embedded with silver nanoparticles and CdTe quantum dots	Devi Ahilya Vishwavidyalaya	Indore
100	Mr Deepak Waghmare	Raman spectroscopy of optically stretched red blood cells	Devi Ahilya Vishwavidyalaya	Indore