

List of students who carried out project work at RRCAT during 2015 - 16

Sr.No	Student Name	Project Title	University/ Institute	Place
1	Ms Geethika Muralidharan	A study of Yb:YAG laser	Cochin University of Science and Technology	Kochi, Kerala
2	Ms Geeta	Fabrication of frequency selective surface in mid-infrared region	Banasthali Vidyapith	Rajasthan
3	Ms Divya Bharti	Physics of plasma mirror	Cochin University of Science and Technology	Kochi, Kerala
4	Ms Priya Khachane	Simulation & development of high power class-D 2 MHz, 4kW RF source for RF based H-ion source	SVKM's NMIMS University	Mumbai
5	Mr R.Sivaraman	Design and development of peripherals interface using FPGA, for biomedical imaging and instrumentation	Shanmugha Arts, Science, Technology & Research Academy	Tirumalaisamudram, Thanjavur, Tamil Nadu
6	Mr Subhash Rajak	Design and development of direct laser writer and its application in fabrication of microlens lithography	Formerly Bengal Engineering and Science University	Shibpur , Howrah
7	Mr Anant Jaiswal	Development of FPGA based test setup for performance evaluation of RF front end of digital beam position monitor of Indus- 2	Indian Institute of Engineering Science & Technology	Shibpur, Howrah
8	Ms Geet Jain	Flow mal-distribution study in cryogenic counter-flow plate fin heat exchangers	Devi Ahilya Vishwavidyalaya	Indore
9	Ms Ishita Bhatia	Software development for Indus-2 front-end and beamline	Devi Ahilya Vishwavidyalaya	Indore
10	Ms Mudamala Maheswara Reddy	Development and characterization of Yb-doped ultrashort all-fiber amplifier systems and its application to material processing	National Institute of Technology	Warangal
11	Mr Devesh Malviya	Analysis and design of current-fed symmetrical capacitor- diode voltage multiplier	Sam Higginbottom Institute of Agriculture, Technology & Sciences,	Allahabad, U.P.
12	Mr Bhupendra Singh Thakur	Structural analysis of infra-red free electron laser (IR-FEL) beam transport line for external pressure and pumping power calculation	Shri Govindram Seksaria Institute of Technology and Science	Indore, M.P.
13	Mr Miti Ranadive	Structural design and vibration analysis of mechanical support system and precision alignment system of free electron laser (IR-FEL)	Shri Govindram Seksaria Institute of Technology and Science	Indore, M.P.
14	Mr Jagadish Chandra	Integration of solid state RF power supplies with FAF CO ₂ laser	National Institute of Technology	Warangal
15	Mr Akshay Tyagi	Synthesis of lithium niobate nanoparticles by modified Sol-Gel method and their characterization	Central University of Rajasthan	Ajmer
16	Mr Ajaya Kumar Barik	Characterization of indigenously developed hollow cathode discharge lamp for optogalvanic spectroscopy	MIT, Manipal University	Manipal, Karnataka
17	Mr Kiran Ashok Kadam	Coupled field analysis of radio frequency quadrupole (RFQ) structure using finite element method	Rajarambapu Institute of Technology	Rajaramnagar, Islampur
18	Mr Gaurav Kumar Nagar	CFD Analysis of heat exchanger for temperature control in 2k cryostat	Amity University	Jaipur, Rajasthan
19	Mr Rohit Ravindra Desai	Design analysis, development and testing of 20-cell PWT electron linear accelerator structure	Rajarambapu Institute of Technology	Rajaramnagar
20	Ms K.V. Reeja	Preparation and characterization of self-luminescent mesoporous silica nanoparticles for biomedical applications	MIT, Manipal University	Manipal, Karnataka
21	Ms U. Neethu	Development of transparent Nd:YAG ceramics for laser host application	Cochin University of Science and Technology	Kochi, Kerala
22	Ms R. Anupamaa	Saturated absorption spectroscopy in magnetic field for diode laser frequency stabilization	MIT, Manipal University	Manipal
23	Mr Vikas Dubey	Project monitoring system for big data (PMSBD)	KIIT University	Bhubaneswar, Odisha
24	Ms Shiksha Agrawal	Characterization of pulsed laser deposited niobium carbide thin films	Pt. Ravishankar Shukla University	Raipur (C.G.)
25	Ms Nargish Aneshwari	Annealing study of Au/Cr bilayer using X-ray reflectivity technique	Pt. Ravishankar Shukla University	Raipur (C.G.)
26	Mr Abhijeet U. Naik	Study and investigation of issues related to simulation of electron beam welding for optimization of weld parameters	Shri Guru Gobind Singhji Institute of Engineering and Technology	Nanded
27	Mr Nitesh Kumar Suthar	Mechanical, thermal and vacuum design aspects of UHV system of super-conducting wavelength shifter system at Indus-2 synchrotron radiation source	Rajiv Gandhi Prodyogiki Vishwavidhyalaya	Bhopal (M.P)
28	Ms Arshdeep Kaur	Growth of heterojunction of CuO-ZnO nanorods	Amity University Uttar Pradesh	Noida
29	Ms Tulika	X-ray reflectivity study of gold film deposited in oxygen environment	AmityUniversity Uttar Pradesh	Noida
30	Mr Vivek Kumar Dhimole	Mechanical, thermal and vacuum engineering aspects of ultra high vacuum system of APPLE-2 undulator at Indus-2 SRS	Shri Govindram Seksaria Institute of Technology and Science, Indore	Indore
31	Mr Aman Vikram	Nonlinear structural analysis for multi-call SCRF cavity	IEST	Shibpur, West Bengal
32	Mr Krishna Prajapati	A study on multiferroic properties of nanocomposites	Central University of Rajasthan	Ajmer
33	Mr Ajit Kumar	Experimental investigation of tensile properties using miniature samples and its implementation for laser additive manufactured AISI SS304L material	Indian School of Mines	Dhanbad
34	Ms Pragya Tiwari	Doppler-free spectroscopy using beam of metastable krypton atoms	Devi Ahilya Vishwavidyalaya	Indore
35	Ms Divya Aggarwal	Frequency analysis of X-Ray reflectivity data by FFT	Amity Institute of Applied Sciences, Amity University	Noida (U.P)
36	Ms Ritu Agrawal	Preparation and optical properties of metal-semiconductor hybrid nanostructures	Pt. Ravishankar Shukla University	Raipur (C.G.)
37	Ms Preeti Chugh	Synthesis and characterization of lead nickel niobate ceramics	AMITY University	Haryana
38	Ms Niyati Agrawal	Studies on high temperature compatible X-ray refractive lenses for X-ray microfocussing	Pt. Ravishankar Shukla University	Raipur (C.G.)
39	Mr Aadil Qadir Bhat	Development of low cost electrochemical Biosensor with specific attention to H ₂ O ₂ for potential liver disease diagnostic	Devi Ahilya Vishwavidhyalaya, Indore	Indore
40	Ms Kanupriya Trivedi	Development of low cost electrochemical biosensor with specific attention to H ₂ O ₂ detection for cholesterol level	Devi Ahilya Vishwavidyalaya, Indore	Indore
41	Mr Ashutosh Dwivedi	Laser photo-detachment studies as a diagnostics tool for hydrogen negative H- ion source	Devi Ahilya Vishwavidyalaya, Indore	Indore
42	Ms Anamika Hardel	Plasmonic properties of Ag/Au nanoparticles grown by different methods and interaction of citrate capped Au nanoparticles with cationic dye and surfactants	Pt. Ravishankar Shukla University	Raipur (C.G.)
43	Ms Shalmali Tiwari	Synthesis of TiO ₂ nanoparticles by CO ₂ laser pyrolysis, their immobilization and generation of mixed phase of anatase and rutile using laser sintering	Pt. Ravi Shankar University	Raipur (C.G.)
44	Mr Atit Pandey	The influence of isochronal annealing on the microstructure and mechanical properties of FeNiNbB & FeNiNbBCu metallic glasses	Pt. Ravishankar Shukla University	Raipur (C.G.)
45	Mr Murlidhar Dilliwar	Fabrication and characterization of W/B ₂ C X-ray multilayer	Pt. Ravishankar Shukla University	Raipur (C.G.)
46	Mr Rajul Lal Gour	Design and characterisation of feedback control loop for magnet power supply in particle accelerators	Jabalpur Engineering College	Jabalpur
47	Mr Akshat Srivastava Kulshrstha	Fabrication of electrostatic microactuator for MEMS application	Manipal University Jaipur	Jaipur
48	Mr Himanshu Gautam	Analysis of copper/nickel-based functionally graded materials produced by laser additive manufacturing	IIT Kanpur	Kanpur
49	Ms Bhavini Bafna	Study and development of prototype beam position monitor for electron linear accelerators	Devi Ahilya Vishwa Vidhyalaya	Indore
50	Mr Abhishek Parihar	Fabrication and microscopic investigation of long period fiber gratings	Devi Ahilya University	Indore
51	Ms Geethy Purushothaman	Study of formation and deposition of nanoparticulate TiO ₂ thin film using langmuir-blodgett technique	Cochin University of Science and Technology	Cochin
52	Ms Sweta Khare	Study and design of field programmable gate array based superconducting radio frequency cavity detuning measurement system	Devi Ahilya Vishwavidhyalaya	Indore
53	Ms Kavita Raghuvanshi	Plasma based x-ray laser	Devi Ahilya Vishwavidhyalaya	Indore
54	Mr Shubendu Shome	Exploration of Ion emission characteristic of intense, ultra-short laser produced plasma	Devi Ahilya Vishwavidhyalaya	Indore
55	Mr MD Saddam Hussain	Generation of linearly polarized radiation with a CW ytterbium doped fiber laser	Shri G. S. Institute of Technology and Science	Indore
56	Ms Pooja Bundel	Studies on the development of THz slow wave devices using x-ray LIGA technique	Banasthali University	Banasthali
57	Mr Uogesh Uchhasare	Studies on gain narrowing compensation in a regenerative amplifier using combined gain media	Devi Ahilya Vishwavidhyalaya	Indore
58	Ms Anjali Nagwanshi	Effect of oxygen deficiency and co-doping on the electrical Properties of BaTiO ₃	Ravishankar Shukla University	Raipur (C.G.)
59	Mr Avinash Kumar	Optimization of output ripple voltage for full-bridge series resonant SMPS	Jabalpur Engineering College	Jabalpur, M.P.
60	Mr Viji OC	Growth of benzophenone non-linear optical crystal in natural morphology and in cylindrical forms along <110> and phase matching direction for increasing the yield of	Cochin University of Science and Technology	Cochin, Kerala
61	Ms Sucheta Khandekar	Design and development of electromagnetic launcher (coilgun)	Jabalpur Engineering College	Jabalpur, M.P.
62	Ms Shabana Shah	Study of shock wave propagation	Devi Ahilya Vishwavidhyalaya	Indore
63	Ms Ruchi Bhandari	Carrier dynamics studies by resonant probing in semiconductors using non-degenerate pump-probe reflectivity	Devi Ahilya Vishwavidhyalaya	Indore
64	Mr Amit Verma	Assembly and characterization of a 2x2 array amplifier for Nd:glass laser amplifier for high energy high power glass laser system	Devi Ahilya Vishwavidhyalaya	Indore
65	Mr Ajay Patil	Development of non-binary x-ray grating for talbot based interferometry and its comparison with binary grating	Shri G. S. Institute of Technology and Science	Indore
66	Mr Arshad Pathan	Prototype development of permanent magnet based magnetic levitated train working model	Devi Ahilya Vishwavidhyalaya	Indore
67	Ms Amrin kaur Ishar	Development of prototype recipe software for semiconductor layer growth using programmable automation controller	Shri Vaishnav Institute of Technology & Science	Indore
68	Ms Mamta Mishra	Study and development of flaw detection and measurement technique in non destructive testing using ultrasonic	Devi Ahilya Vishwavidyalaya	Indore
69	Ms Pallavi Nagar	Evaluation of a bio compatible dressing for wound healing application	Jayoti Vidyapeeth Women's University	Jaipur
70	Mr Brajesh Lakhera	Structural and magnetic properties of yttrium iron garnets prepared using nano-synthesis and solid-state routes	Rajiv Gandhi Proudoyogiki Vishwavidyalaya	Bhopal
71	Mr Girish	Investigation of structural and band gap properties of metal doped ZnO/ZnO heterostructure	Pt. Ravishankar Shukla University	Raipur (C.G.)
72	Mr Sandeep Jayaswal	Growth and characterization of nanostructured optical thin films by glancing angle deposition	Shri G. S. Institute of Technology and Science	Indore
73	Mr Parmveer Singh	Experimental study and testing of raman based optical distributed temperature sensor at 532nm wavelength	Shri G.S. Institute of Technology and Science	Indore
74	Mr Aditya Jain	Design and simulation of microstrip antenna to measure electromagnetic radiation	Symbiosis Institute of Technology	Pune
75	Mr Anand Gurjar	Studies for constraints in machining of Radio Frequency Quadrupole (RFQ) Structure on 5-axis machining center	Shri Govindram Seksaria Institute of Technology and Science	Indore
76	Mr Badal Salvi	Study of manufacturing of radio frequency quadrupole	Shri Govindram Seksaria Institute of Technology and Science	Indore
77	Mr Bhrgu Raj Sharma	Solution growth of benzophenone crystal and investigation of its second and third order nonlinear optical properties	Rajiv Gandhi Proudoyogiki Vishwavidyalaya	Bhopal
78	Ms Pratibha Soni	Thermal spray conductive coating on copper & ferrite and their characterization	Shri Govindram Seksaria Institute of Technology and Science	Indore
79	Ms Neha Bhardwaj	Growth and effect of dopants on the physical properties of strontium barium niobate by optical floating zone method	Shri G. S. Institute of Technology and Science	Indore
80	Ms Shradha Giri	Studies on closed loop laser power control in a dynamic fashion through temperature distribution measurement in LAM system	Shri Vaishnav Institute of Technology and Science	Indore
81	Mr Ajay Pratap Singh Lodhi	A study on sliding wear behaviour of plasma transferred Arc deposited Fe (Iron) clad layer over aluminium alloy	Shri G.S. Institute of Technology & Science	Indore
82	Mr Saurabh Sah	Effect of Al doping on the properties of β-Ga ₂ O ₃ single crystal grown by optical floating zone technique	Shri G. S. Institute of Technology and Science	Indore
83	Mr Kundan Agrawal	Low current readout electronics development for beamline instruments	Devi Ahilya Vishwavidhyalaya, Indore	Indore
84	Mr Ashish Chadar	Growth and investigation of optical and thermoluminescence properties of strontium tetra borate single crystals	Rajiv Gandhi Technical University	Bhopal, M.P.
85	Mr Mohit Gupta	Optimization of reactive Ion etching of GaN for optoelectronic applications	Rajiv Gandhi ProudoyogikiVishwavidyalaya	Bhopal, M.P.
86	Mr Raghvendra	Spatial sensitivity of radiation beam using quadrant detector	Rajiv Gandhi Proudoyogiki Vishwavidyalaya	Bhopal, M.P.
87	Ms Anjali Nihore	Surface modification studies on stainless steel and alumina	Devi Ahilya Vishwavidhalaya	Indore
88	Mr Deepak Patidar	Development of electronic data acquisition system for H ⁺ Ion source plasma characterization using langmuir probe	Devi Ahilya Vishwavidyalaya	Indore
89	Mr Akshay Rai	Development of laser diode arrays for pumping the optical fiber medium	Shri G. S. Institute of Technology and Science	Indore
90	Mr Vipin Thomas	Effect of cerium doping on optical and scintillation properties of transparent YAG ceramic developed for X-ray detection and imaging application	University of Kerala	Thiruvananthapuram, Kerala
91	Mr Nishant Reahal	Development of stepper motor controller using arduino	Punjab Technical University	Jalandhar
92	Ms C. Reshmi	Studies on Yb:YAG transparent ceramics and Tb:Yb co-doped YAG nanophosphor for green emission	University of Kerala	Thiruvananthapuram, Kerala
93	Mr V.Sachin	Unidirectional growth of KDP crystal along [001] direction and fabrication of electro-optic modulator	University of Kerala	Thiruvananthapuram, Kerala
94	Mr Rupesh Kumar Verma	Information sharing portal for Indus sub-systems	Devi Ahilya Vishwavidhyalaya	Indore
95	Ms Nargish Aneshwari	Annealing study of Au/Cr bilayer using X-ray reflectivity technique	Pt. Ravishankar Shukla University	Raipur (C.G.)
96	Mr Saurabh Mundra	Infrastructural design for typical modular accelerator labs	Rajiv Gandhi Prodyogiki Vishwa Vidyalaya	Bhopal