## 3.2.1 Grants received from Government and non-governmental agencies for research projects, endowments, Chairs in the institution during the last five years (INR in Lakhs) (2) & 3.2.2 Percentage of teachers having research projects during the last five years (2) 3.2.4 Average Percentage of departments having Research projects funded by government and non government agencies during the last five years (3)

SI.No.	Name of the Project/Endowments, Chairs	Name of the Principal Investigator/ Co Investigator (if applicable)	Name of the Funding agency	Type (Government/ Non-Government)	Department of Principal Investigator/ Co Investigator	Year of Award	Funds provided (INR in lakhs)	Duration of the project
1	Perovskite Solar Cells	Dr. Rajesh Lalwani	UGC - DAE, IUC-CSR, Indore	Government	Applied Physics	2022	7.29	3 Years
2	Introduction of Smart Warehouses for Post Harvest Problems of Chhattisgarh Farmers	Dr. Ashok Kumar Chandra/ Dr. Urvashi Shristava	Chhattisgarh State Planning Commission	Government	Master of Business Administration	2022	5	3 Years
3	Design and Development of Cost Effective Machine Vision Based Smart Drone Recharged via Wireless Power Transmission	Dr. Shashwati Ray	DST (Department of Science & Technology) - Technology Development	Government	Electrical Engineering	2021	34	3 Years
4	NIR-Sensitive GD 203 based materials as triggers for photoreaction of photosensitive materials for biomedical application"	PI- Dr. Kanchan Upadhyay, Mentor- Dr. Raunak Kumar Tamrakar	Department of Science and Technology, New Delhi (DST) Govt. of India	Government	Applied Physics	2021	33.47	3 Years
5	Idea Development, Evaluation and Application	Dr. Arun Arora	All India Council for Technical Eduction (AICTE)	Government	Mechanical Engineering	2021	45.30	2 Years
6	Use of Binaural Auditory Beats for reducing attention Deficit Disorder in Autistic children & analyzing the effectiveness.	PI- Mrs. Vinni Sharma CO PI- Devanand Bhonsle	Chhattisgarh Swami Vivekanand Technical University, Bhilai	Government	Electronics & Telecommunication Engineering	2020	2.00	2 Years
7	Contemporary issues in HRM	PI- Dr. Ashok Chandra	MDP on contemporary issues in HRM Sponsored by MSME	Governement	Master of Business Administration	2020	0.25	1 Year
8	Effect of Epoxy coating on structural steel section under tension	PI- Dr. Mohan Kumar Gupta CO PI- Mrs. Shraddha Sharma	Chhattisgarh Swami Vivekanand Technical University, Bhilai	Government	Civil Engineering	2020	2.00	2 Years
9	Implementation of Three phase inverter (Matrix Converter)	Mentor- Dr. Surya Prakash Shukla Mentees- Mr. Tarjan Kumar Suryavanshi	Chhattisgarh Swami Vivekanand Technical University, Bhilai	Government	Electrical Engineering	2020	0.65	2 Years
10	Design & Implementation of a micro grid enegry management system	PI- Dr. Shimpy Ralhan Goyal CO PI- Dr. Shashwati Ray CO PI- Dr. Mahesh Singh	Chhattisgarh Swami Vivekanand Technical University, Bhilai	Government	Electrical Engineering	2020	1.80	2 Years
11	Conditioning monitering of power transformers using disssolved gas	PI- Mr. Rahul Pandey CO PI - Dr. Naveen Goyal CO PI - Dr. Surya Prakash Shukla	Chhattisgarh Swami Vivekanand Technical University, Bhilai	Government	Electrical Engineering	2020	1.50	2 Years
12	Smart irrigation system using IoT	PI- Mr. Prabhas Kumar Gupta CO PI- Dr. Nagendra Tripathi	Chhattisgarh Swami Vivekanand Technical University, Bhilai	Government	Electrical Engineering	2020	2.14	2 Years
13	Design & Development of a cost effective phasor measurment unit for real time monitoring of smart power system	PI- Dr. Shashwati Ray CO PI- Dr. Shimpy Ralhan Goyal CO PI- Mr. Gourav Shankar	Chhattisgarh Swami Vivekanand Technical University, Bhilai	Government	Electrical Engineering	2020	1.00	2 Years
14	Line start permanent magnet motors for future electric vahicle	PI- Dr. Ankita Dwivedi CO PI- Mrs. Pritha Gupta	Chhattisgarh Swami Vivekanand Technical University, Bhilai	Government	Electrical Engineering	2020	2.50	2 Years
15		PI- Dr. Devanand Bhosle CO PI- Dr. Surya Prakash Shukla	Chhattisgarh Swami Vivekanand Technical University, Bhilai	Government	Electrical Engineering	2020	1.50	2 Years
16		PI- Dr. Ritesh Dash	Chhattisgarh Swami Vivekanand Technical University, Bhilai	Government	Electrical Engineering	2020	2.50	2 Years
17	Implementation of laboratory scale micro grid incorporating renewable energy sources	PI- Dr. Surya Prakash Shukla CO PI- Mr. Dipesh Sharma	Chhattisgarh Swami Vivekanand Technical University, Bhilai	Government	Electrical Engineering	2020	4.95	1 Year
18	Key enabling technique for virtual	PI - Dr. Vishnu Mishra CO PI - Dr. Anup Mishra CO PI - Dr. Megha Mishra	Chhattisgarh Swami Vivekanand Technical University, Bhilai	Government	Electrical & Electronics Engineering	2020	1	1 Years

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19	Design and development of parallel frame work for measurement of heat distributioning metallic seeds	PI- Dr. Manisha Sharma CO PI- Mr. Rajesh Tiwari	Chhattisgarh Swami Vivekanand Technical University, Bhilai	Government	Electronics & Telecommunication Engineering	2020	3.00	2 Year
20	Design and implementation of image retrieval system for trademark/logo image for registration	PI- Latika Pinjarkar CO PI- Dr. Manisha Sharma	Chhattisgarh Swami Vivekanand Technical University, Bhilai	Government	Electronics & Telecommunication Engineering	2019	1.50	2 Years
21	2D nano structure based field effect Transistor as gas sensor. ab-initio modeling	PI- Swati Verma CO PI- Dr. Arun Kumar	Chhattisgarh Swami Vivekanand Technical University, Bhilai	Government	Electronics & Telecommunication Engineering	2019	1.50	2 Years
22	Measurement of leaf area and nitrogen contain of betal leaf using image processing technique	PI- Mr. Amar Kumar Dey CO PI- Mr. Abhishek Misal	Chhattisgarh Swami Vivekanand Technical University, Bhilai	Government	Electronics & Telecommunication Engineering	2019	1.80	2 Years
23	Performance enhancement of microinverting solar PV power generation using passive filters	PI- Mr. Naveen Goyal CO PI- Mrs. Ekta Tamrakar	Chhattisgarh Swami Vivekanand Technical University, Bhilai	Government	Electronics & Telecommunication Engineering	2019	3.00	2 Years
24	Development of Low cost Single family Solar Cooker	PI: Mr. Abhishek Misal Co-PI: Dr. Amar Kumar Dey Dr. Sanjay Agrawal	Chhattisgarh Swami Vivekanand Technical University, Bhilai	Government	Electronics & Telecommunication Engineering	2019	2.25	3 Years
25	Opinion Mining of tourism sector of India using Machine Learning algorithm from reviews collected through social media	PI- Dr. Smita Selot CO PI- Dr. Ani Thomas CO PI- Mr. Sreejit Panicker	Chhattisgarh Swami Vivekanand Technical University, Bhilai	Government	Information Technology	2019	3.00	2 Years
26	To facilitate the sales of rural products and arts of Chhattisgarh through E- Commerce using Data Mining, Data Science and Soft Computing Techniques	PI- Aditya Tiwari CO PI- Dr. Jyothi Pillai	Chhattisgarh Swami Vivekanand Technical University, Bhilai	Government	Information Technology	2019	1.20	2 Years
27	An ICT approach towards enhancing english speaking skills	PI- Dr. Seema Arora CO PI- Dr. Madhu Kamra CO PI- Mr. Amrendea Singh	Chhattisgarh Swami Vivekanand Technical University, Bhilai	Government	Information Technology	2019	1.50	2 Years
28	Study the different low pressure acetylene generators using Chhattisgarh region	PI- Prem Shankar Sahu CO-PI- Mr. H.R. Chandrakar CO PI- Mr. Vikrant Tapas	Chhattisgarh Swami Vivekanand Technical University, Bhilai	Government	Mechanical Engineering	2019	1.50	1 Year
29	Extraction of oil using pyrolysis reactor and its characterization	PI- Mr. Jay Singh Gaherwal CO-PI- Mr. Mahesh Dewans CO PI- Mr. Deepak Mahapatra	Chhattisgarh Swami Vivekanand Technical University, Bhilai	Government	Mechanical Engineering	2019	3.00	1 Year
30	A novel high entropy alloys with composite microstructures	PI- Dr. Anil Kumar Sahu CO PI- Mr. Rajesh Kumar CO PI- Rituraj Chandrakar	Chhattisgarh Swami Vivekanand Technical University, Bhilai	Government	Mechanical Engineering	2019	2.00	1 Year
31	Synthesis and characterization of high entropy alloys	PI- Dr. Arun Arora CO PI- Mr. Sanjay Singh CO Pi- Dr. Anil Kumar	Chhattisgarh Swami Vivekanand Technical University, Bhilai	Government	Mechanical Engineering	2019	3.00	1 Year
32	Development and Characterization of Novel WNbMoTaTiSix (x = 0, 0.3, 0.6 and 0.9 atomic ratio) Refractory Hingh Entropy Allos for High Temperature Applications by Vacuum Arc Melting Route	PI- Dr. Anil Kumar Sahu	AICTE- RPS Scheme	Government	Mechanical Engineering	2019	23.10	3 Years
33	Mechanoluminescence and thermoluminescence studies of rare earth activated phosphors for display and mechanical sensors	PI- Dr. Vikash Dubey CO PI- Dr. Raunak Kumar Tamrakar	Chhattisgarh Swami Vivekanand Technical University, Bhilai	Government	Applied Physics	2019	2.00	1 Year
34	A Novel approach to the synthesis of photosensitive non structure material their characterization for Utilization of solar energy in Chhattisgarh	PI- Dr. Rajesh Lalwani CO PI- Dr. Devi Singh Raghuvanshi CO PI- Dr. Ruby Das	Chhattisgarh Swami Vivekanand Technical University, Bhilai	Government	Applied Physics	2019	2.00	1 Year

SI.No.	Name of the Project/Endowments, Chairs	Name of the Principal Investigator/ Co Investigator (if applicable)	Name of the Funding agency	Type (Government/ Non-Government)	Department of Principal Investigator/ Co Investigator	Year of Award	Funds provided (INR in lakhs)	Duration of the project
35	Studies of luminescence properties of rare earth doped and co-doped phosphors	PI- Dr. Manmeet Kaur Bhuie CO PI- Dr. Prashant Kumar Sahu , CO PI- Dr. Mimi Akash Pateria	Chhattisgarh Swami Vivekanand Technical University, Bhilai	Government	Applied Physics	2019	2.00	1 Year
36	Development of low cost and high performance polymer gas sensor	PI- Dr. Devi Singh Raghuvanshi CO PI- Dr. Rajesh Lalwani CO PI- Mr. B. Gopal Krishna	Chhattisgarh Swami Vivekanand Technical University, Bhilai	Government	Applied Physics	2019	2.00	1 Year
37	Mechanoluminescence for crack detection in cementitious structure	PI- Mr. Ram Krishna Mishra CO PI- Dr. Raunak Kumar Tamrakar	Chhattisgarh Swami Vivekanand Technical University, Bhilai	Government	Applied Physics	2019	2.50	1 Year
38	Modernization and Removal of Obsolescence Scheme (MODROB)	Dr. S.K. Ganguli	All India Council for Technical Eduction (AICTE)	Government	Mechanical Engineering	2019	10.35	3 Years
39	Development of efficient biosorption technology for removing cadmium from industrial effluent	PI- Dr. Sangeeta Sahu CO PI- Dr. Madhurima Pandey	Chhattisgarh Swami Vivekanand Technical University, Bhilai	Government	Applied Chemistry	2019	1.00	1 year
40	Health risk assessment and remediation technique for uranium contamination in ground water of Durg and near by District Chhattisgarh	PI- Dr. Santosh Kumar Sar CO PI- Dr. Pradeep Kumar Ghosh	Chhattisgarh Swami Vivekanand Technical University, Bhilai	Government	Applied Chemistry	2019	2.00	1 year
41	Building Entrepreneurship Awareness	PI- Dr. Ashok Chandra	Entrepreneurship	Governement	Master of Business Administration	2019	0.40	1 Year
42	Avenues of Sustainable Tourism in Chhattisgarh	PI- Dr. Abhishek Chakraborty	Chhattisgarh Swami Vivekanand Technical University, Bhilai	Governement	Master of Business Administration	2019	1.00	1 Year
43	Erasmus+ European Union Project	Pl- Dr. Venkata Metta Padmavati	Royal Academy of Engineering Uttrakhand	Non Government	Computer Science & Engineering	2018	341.3	2 Years
44	Entrepreneurial Skill Development for Rural Agro, Food Processing and Healthcare based Start-up	PI- Dr. Ashok Kumar Chandra Co PI- Dr. Dharmendra Kumar Gangeshwar	Entrepreneurial skills Development for Rural Agro Food Processing and Health care Based Start ups	Governement	Master of Business Administration	2018	2.50	1 Year
45	Margdarshan	Dr. Arun Arora	All India Council for Technical Eduction (AICTE)	Government	Mechanical Engineering	2018	24.38	3 Years
46	Towards improvisation of hybrid biomass by gelation technique for preparing an integratedde-fluoridation unit to alternative the contaminants fron groundwater of fluoride affected area.	PI- Dr. Yashu Verma	Chhattisgarh Council of Science and Technology, Raipur	Government	Applied Chemistry	2017	4.14	2 Years
47	Stability of oblate infinitesimal in the elliptic restricted three body problem with oblate radiating primaries.	PI- Dr. Ashutosh Narayan	Chattisgarh Council of Science and Technology	Government	Applied Mathematics	2017	4.28	2 Years
48	Promotion of Start-up and Development of entrepreneurial Skill	PI- Dr. Sanjay Guha CO PI- Dr. Ashok Kumar Chandra	Promotion of Start up and Development of Entrepreneurial skill	Governement	Master of Business Administration	2017	2.50	1 Year
49	Development of a Mateorological Information System MetlS) (A Case for Village of Bilaspur District Chhattisqhar)	Dr. Sanjeev Karmakar	Chhattisgarh Council of Science & Technology Raipur Chhattisgarh	Government	Computer Applications	2017	4.990	3 Years
50	Spatial Distribution of Uranuim and associated water quality parameter in ground water of Durg and 5 Districst	PI- Dr. Santosh Kumar Sar	Department of Atomic Energy Board of Research in Nuclear Science	Government	Applied Chemistry	2017	33.00	2 Years
51	Spatial Distribution of Uranium and associated water quality parameter in ground water of Northern Stern Districts.	PI- Dr. Madhurima Pandey	Department of Atomic Energy Board of Research in Nuclear Science	Government	Applied Chemistry	2017	18.89	2 Years

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_		2021-22	2020-21	2019-20	2018-19	2017-18				
		125.1	26.79	73.60	368.18	67.80				