Project No	Name of the scientist	Project Title or Domain	Skill set required	Discipline (degree) requirement	Number of students
1	Jai Gopal Pandey	BMS for EVs	Circuit theory, Digital, Aaanlog, VLSI	A3, A8, AA	**2**
2	Jai Gopal Pandey	Hardware Secuirty	Digital Circuits, Cryptography, Verilog	A3, A8, AA, B4, A7	**2**
3	Jai Gopal Pandey	Low-power circuits for WSN	Communication, Digital, Circuits, VLSI	A3, A8, AA	**2**
4	Jai Gopal Pandey	Advanced Cryptography	Digital Circuits, Cryptography, Verilog	A3, A8, AA, B4, A7	**2**
5	Sanjay Singh	Optimization of deep learning algorithms for resource-constrained devices	Python, C++, Basic of ML and DL	A7, A3, A8, AA	**3**
6	Sanjay Singh	Deep learning architectures for Face Recognition in the wild	Python, C++, Basic of ML and DL	A7, A3, A8, AA	**3**
7	Sumeet Saurav	Deep learning architectures for anomaly detection in videos	Python, C++, Basic of ML and DL	A7, A3, A8, AA	**3**
8	Sumeet Saurav	Robust Lightweight CNNs for FER in Real World Conditions	Python, C++, Basic of ML and DL	A7, A3, A8, AA	**2**
9	Sumeet Saurav	Development of deep learning architectures for inspection and monitoring of power line infrastructure	Python, C++, Basic of ML and DL	A7, A3, A8, AA	**3**
10	sumitra singh	sensors for prosthetic hand application		A3, A8, AA, B5	**2**
11	Soumendu Sinha	Design and simulation of PMUT/CMUT	Semiconductor devices	A3, A8, AA, A4, B5	**2**
12	Soumendu Sinha	Design and simulation of MEMS Thermoelectric Sensor	Semiconductor devices	A3, A8, AA, A4, B5	**2**
13	Jitendra Singh	Design and simulation of Piezoelectric Micro-Electro-Mechanical Systems (MEMS) sensors	Semiconductor devices	A3, A8, AA, A4, B5	**2**
14	Niraj Kumar	High Power THz source	Electronics, Electrical, Mechanical	A3, A8, AA, A4, B5	**3**
15	Satyam	Scene/ text/ object indentification and recognization through AI techniques	Python,Basic of ML and DL	A3, A7, A8, AA, B1,B2,B5	**2**
16	Satyam	Lession localization and priortization through computer vision techniques for point of care imaging devices	Python,Basic of ML and DL	A3, A7, A8, AA, B1,B2,B5,A4	**2**
17	Satyam	Real- Time Prediction algorithm for low power IoT devices	Python,Basic of ML and DL, embedded systems,	A3, A7, A8, AA, B1,B2,B5,A4	**3**
18	Satyam	Real -Time digital imaging system development	Embedded Systems, Microcontrollers, IoT, Android	A3, A7, A8, AA, B1,B2,B5,A4	**2**
19	Satyam	FPGA based water quality monitoring solutions	VHDL, FPGA, Verilog	A3, A7, A8, AA, B1,B2,B5,A4	**2**
20	Satyam	low power inline solution for leekage detection in under ground pipelines	Embedded Systems, Microcontrollers, IoT, Android	A3, A7, A8, AA, B1,B2,B5,A4	**2**
21	Satyam	vital health parameters detection using non- invasive methods	Embedded Systems, Microcontrollers, IoT, Android	A3, A7, A8, AA, B1,B2,B5,A4	**2**
22	Satyam	Sub- Ghz enabled micro imaging system for medical applications	Embedded Systems, Microcontrollers, IoT, Android	A3, A7, A8, AA, B1,B2,B5,A4	**2**
23	Pijus Kundu	Design and simulation of GaN based high power devices	Semiconductor devices	A3, A8, AA, A4, B5	**2**
24	Agarwal	Terahertz (THz) Detector	Semiconductor Devices, VLSI Technology	A3, A8, AA, A4, B5	**2**
25	Agarwal	Infrared Detector Array	Semiconductor Devices, VLSI Technology	A3, A8, AA, A4, B5	**2**
26	Anand Abhishek	DC microgrid for agrovoltaics	Power Electronics, Electrical Engineering	A3, A8, AA, A4, B5	**2**
27	GAURAV PUROHIT	RISC V based KYBER post quantum architecuture design	Python, C++, Digital design	A3,A7,A8,AA,B4,B5	**3**
28	GAURAV PUROHIT	RISC V based REconfigurable architecture for Numer Theoritic Transform	Python, C++, Digital design	A3,A7,A8,AA,B4,B5	**3**

29	GAURAV PUROHIT	RISC V based based Polynomial Multiplier :Montgomery and Barrett transform	Python, C++, Digital design	A3,A7,A8,AA,B4,B5	**2**
30	GAURAV PUROHIT	Desig inhouse APPs with local database storage and ceeri cloud mechanism.	Strong Python, flask, databse sql, Docker, container	A3,A7,A8,AA,B4,B5	**2**
31	GAURAV PUROHIT	Android APP, APi design, for society management, gating, clubs etc	Android Studio, FLASK , python, java, C	A3,A7,A8,AA,B4,B5,B3	**2**
32	Pramod Tanwar	BCI-DATABASE generation and validation algorithms and methods.	Python, AI and Imageprocessing	A3,A7,A8,AA,B4,B5,B3	**2**
33	GAURAV PUROHIT	channel estimation for 5G systems	(MATLAB/Python)	A3,A8, AA	**2**
34	Pramod Tanwar	DATA modelling for AR-VR android apps	3D cad, Blender	A4, A7, others interested	**3**
35	Kaushal Kishore	Robotics, Navigation and control, AI and image processing	Python, Basics of ML and DL, ROS, control systems	A3, A7, A8, AA	**3**
36	Kaushal KIshore	Circuit design and PCB	Altium, Eagle, electronic circuit design	A3, A7, A8, AA	**2**
37	M Santosh	BMS Design	Circuit design	A3	**2**
38	M Santosh	Low power data converter design and testing	Analog Circuit design	A3	**2**
39	Dhiraj	Deep Learing based architectures for damage segmentation in Wall Paintings for Digital Heritage	Python, Basics of ML and DL	A3, A7, A8, AA, B3, B4, B5	**2**
40	Dhiraj	Non face based robust person recognition using Deep Learning based architectures	Python, Basics of ML and DL	A3, A7, A8, AA, B3, B4, B5	**2**
41	Dhiraj	Real time State of charge prediction in a battery through machine learning techniques	Python, Basics of ML and DL	A3, A7, A8, AA, B3, B4, B5	**2**
42	Dhiraj	Image inpainting to reconstruct damaged/missing parts in ancient art paintings through deep learning	Python, Basics of ML and DL	A3, A7, A8, AA, B3, B4, B5	**2**
43	Dhiraj	Unsupervised anomaly instance segmentation for threat object recognition in pseudo colored x-ray images	Python, Basics of ML and DL	A3, A7, A8, AA, B3, B4, B5	**2**
44	Ravindra Mukhiya	MEMS-based Capacitive Sensor/Transducer	Mechanical/Electronics	A3, A4, A8,, AA	**2**
45	Ravindra Mukhiya	Readout for MEMS-based Capacitive Sensor/Transducer	Electronics/Instrumentation	A3, A4, A8,, AA	**1**
46	Ravindra Mukhiya	MEMS-based Capacitive Accelerometer	Mechanical/Electronics	A3, A4, A8,, AA	**2**
47	Dheeraj Kumar Kharbanda	Piezoelectric sensor/transducer based on LTCC	Mechanical/Electronics	A3, A4, A8,, AA	**2**
48	Jitendra Singh	Microwave and Millimetre waves electronic filters	Electronics, Microwave	A3, A8, AA, B5	**2**
49	Amit Kumar	Development of E-field probe for EM radiation meter	Electronics, Microwave	A3, A8, AA, A4, B5	**1**
50	Dr Bhausaheb Ashok Botre	low power E-moblity - E-bicycle for the old age people	Control System, Electrical and Electronics,	A3, A7, A8, AA	**2**
51	Dr Bhausaheb Ashok Botre	low power E-moblity - E- Tricycle for persons with disability	Control System, Electrical and Electronics, Mechanical	A3, A7, A8, AA	**2**
52	Dr Bhausaheb Ashok Botre	E-mobility - Data Generation and Analysis	Embedded System, AI, Data Science and ML	A3, A7, A8, AA	**2**
53	Dr Bhausaheb Ashok Botre	Leakage detection, localization in Smart Water Grid using DSML techniques	Embedded System, AI, Data Science and ML	A3, A7, A8, AA	**2**
54	Dr Bhausaheb Ashok Botre	AI controlled SMA actuator	Control System, Embedded System and AI	A3, A7, A8, AA	**2**
55	Dr L. Padmavathi	SIMSCAPE model development for EVs and controllers, FPGA, OPAL/RT based power electronics & system control implementation	Digital control, power electronics	A3, A8, AA, A4, B5	2

56	Dr Shashikant Sadistap	Smart PLC controllers and HMI for Industrial Applications	Automation , Data analytics, HMI	A3, A7, A8, AA, B3, B4, B5	2
57	Brijendra Kumar Verma	Development of adaptive charging algorithms using AI tools	Power electronics and control, digital control, machine learning	A3, A7, A8, AA	**2**
58	Subhash Kumar Ram	Design of non-linear control algorithm on dSPACE/MicroLabBox and OPAL/RT platform for renewable energy based e-Mobility charging systems	Power electronics, renewable energy sources, linear and non-linear control design, digital control design	A3, A7, A8, AA	**2**
59	Nikhil Suri	IR Emitter for gas sensing applications	Electronics	A3,A8, B5, AA	1
60		Electrochemical senors for various applications	Electronics, Materials	A3,A8,B5, AA	2
		Code	**Discipline (degree)**		
		A1	B.E. Chemical		
		A2	B.E. Civil		
		A3	B.E. Electrical & Electronics		
		A4	B.E.Mechanical		
		A5	B.Pharm.		
		A7	B.E.Computer Science		
		A8	B.E. Electronics and Instrumentation		
		AA	B.E. Electronics & Communication		