Swami Keshvanand Institute of Technology,
Management &Gramothan

(An Autonomous Institute Affiliated to Rajasthan Technical University, Kota)
(Accredited by NAAC with 'A^{++}' Grade)
Approved by AICTE, Ministry of Education, Government of India
Recognized by UGC under Section 2(f) of the UGC Act, 1956

Research Facilities at Department of Computer Science & Engineering

Contents

1. Department overview:

The Department of CSE is dedicated to providing its students with a motivating environment and facilitating their academic requirements with the committed and expert supervision of faculty and experts from various fields from time to time. The Department of CSE offers B.Tech (CSE), B.Tech CSE(IoT) , B.Tech CSE(DS) & B.Tech CSE (AI) , M.Tech (CSE) and PhD(CSE). The B.Tech degree programme has been accredited by NBA.

- **Program Highlights are followings:**
  - Advanced curriculum with demanding practical exposure.
  - Empowered with IBM Software Centre of Excellence
  - Microsoft Ed-vantage Platinum Campus
  - Infosys Advance Partner Institute: SKIT Microsite on Infosys Portal
  - Deep learning avenues like IT Workshop and Conferences
  - Exposure to the latest technologies
  - Pedagogical and scenario-based teaching/learning processes

- **Learning Outcomes are following:**
  - An ability to apply mathematics to solving computing problems.
  - An ability to work effectively in small groups on medium-scale computing projects.
  - Demonstrate capability in building complex web applications using Data Structures and Algorithms, Various Programming Languages & Software methodologies.
  - Utilize Cloud Computing Platform to develop & deploy microservices applications & monitoring logging solutions.
  - Apply problem-solving skills and the knowledge of computer science to solve real problems.

- **Vision**

  V1: Produce quality computer engineers trained in the latest tools and technologies.
  V2: Be a leading department in the region and country by imparting in-depth knowledge to the students in emerging technologies in computer science & engineering.

- **Mission**

  M1: Effective Industry interaction and project-based learning.
  M2: Motivating our students for employability, entrepreneurship, research, and higher education
  M3: Providing excellent engineering skills in a state-of-the-art infrastructure

1.1 Research Areas and faculty expertise:

S. No.	Name	Designation	Area of Expertise
1	Dr. Mehul Mahrishi	Associate Professor & Head (CSE)	Natural Language Processing, Education Technology
2	Dr. Pankaj Dadheech	Professor & Deputy Head (CSE)	High-Performance Computing, Cloud Computing, Information Security, Big Data Analytics, Artificial Intelligence and Internet of Things
3	Dr. C M Choudhary	Professor	Wireless Network, Social Network Analysis
4	Mr. Mahender Kumar Beniwal	Associate Professor	Network Security
5	Mr. Vinod Kataria	Associate Professor	Embedded systems
6	Dr. Aakriti Sharma	Associate Professor	Cloud Computing
7	Dr. Sarabjeet Singh Sethi	Associate Professor	Microprocessors, IoT, Computer Architecture
8	Mr. Harpreet Singh Gill	Associate Professor	DBMS, Computer Graphics
9	Dr. Anjana Sangwan	Associate Professor	Cloud Computing, Big Data Analytics, Operating Systems
10	Dr. Sunil Dhankhar	Associate Professor	High Performance computing
11	Dr. Vinay Kanungo	Associate Professor	WSN, Optimization, IoT
12	Ms. Nidhi Srivastav	Associate Professor	Artificial Intelligence, Machine Learning
13	Dr. Niketa Sharma	Associate Professor	Semiconductor Devices Fabrication & Characterization, Nanotechnology, Biosensors
14	Dr. Yogendra Kumar Gupta	Associate Professor	IoT, Computer Architecture
15	Dr. Nilam	Associate Professor	Cloud Computing, IoT, RPA
16	Dr. Meenakshi Nawal	Associate Professor	Machine Learning, Deep Learning, Data Analytics
17	Dr. Mamta Sakpal	Associate Professor	MACHINE LEARNING
18	Dr. Megha Gupta	Associate Professor	Machine Leaning and Neural Network
19	Dr. Mithlesh Arya	Associate Professor	Image Processing, Machine Learning
20	Mr. Pratipal Singh	Assistant Professor	TOC, DSA, JAVA, C++, Android OS

21	Ms. Ruchika Khandwal	Assistant Professor	Image Processing, Machine Learning
22	Dr. Kajal Mathur	Assistant Professor-II	DBMS, Artificial Intelligence, Machine Learning
23	MS. Priyanka Sharma	Assistant Professor	Machine Learning, Deep Learning, Image Processing
24	Dr. Amit Kumar Sharma	Assistant Professor	Quantum computing and communication
25	Ms. ShanuTripathi	Assistant Professor	VLSI Design
26	MS. Mani Butwall	Assistant Professor-2	Machine Learning
27	Mr. Pawan Kumar Patidar	Assistant Professor	Image Processing,Cloud Computing
28	Mr. Manish bhardwaj	Assistant Professor -2	Machine Learning
29	Dr. Jeba Nega Cheltha	Assistant Professor	Computer Vision
30	Mr. Sumit Kumar	Assistant Professor	Big Data Analytics, WSN
31	Mr. Dinesh Kumar	Assistant Professor	Circuit Designing and IoT
32	Dr. Loveleen Kumar	Assistant Professor	Machine Learning
33	Ms. Barkha Jain	Assistant Professor	Big Data Hadoop
34	Ms. Allisa Goyal	Assistant Professor	BLOCKCHAIN IN WSN
35	Ms. Abha Jain	Assistant professor	Deep Learning
36	Ms. Richa Sharma	Assistant Professor	Algorithms, Blockchain
37	Mr. Vikram Khandelwal	Assistant Professor	Data Structure
38	MR. Sohan Lal Gupta	Assistant Professor	Data Mining, Image Processing, Algorithms
39	Mr. Shirish Nagar	Assistant Professor	Neural Networks, Machine Learning
40	Dr. Archika Jain	Assistant Professor	Machine Learning
41	Ms. Palika Jajoo	Assistant Professor -II	Machine Learning
42	Ms. Neha Mathur	Assistant Professor	Machine Learning, Deep Learning, Image Processing
43	Ms. Priya Gupta	Assistant Professor	Artificial Intelligence, Image Processing
44	Mr. Manish Kumar Sharma	Assistant Professor	Stochastic Modelling, Queuing Theory, Machine Learning and Computer Vision

45	Dr. Arpita Sharma	Assistant Professor-2	Software Engineering
46	Ms. Maina Changeriwal	Assistant Professor	Cyber Security, Artificial Intelligence, Computer Vision
47	Mr. Neeraj Garg	Assistant Professor	Natural Language Processing, Machine Learning, Deep Learning
48	Ms. Kashifa Khan	Assistant Professor	MANET

1.2 Research Students:

Sr. No.	Name of Supervisor	Qualification and Year of obtaining	Year of Recognition as Research Guide	Is the teacher still serving the institution	Name of the scholar	Year of registration of the scholar	Title of the thesis of the for scholar	Status
1	PANKAJ DADHEECH	PhD (2019)	2020	YES	Kanak Giri	2020	Improving Intrusion Detection Systems Resilience Using Feature Engineering and Metaheuristic Algorithms	**Ongoing**
					Pradeep Kumar Sharma	2021	An Intelligent EEG-Based Brain Computer Interface using deep learning models for evoked potential detection and motor imagery task	**Ongoing**
					Garima Gupta	2022	Identification of different diseases in multiple plants using machine learning	**Ongoing**
					Amita Jangir	2018	Machine Learning Based	**Ongoing**

							Approaches for Prediction of Land Use and Land Cover Changes using Multispectral Satellite Images	
					Pankaj Ramakant Kunekar	2018	Multiclass Epilepsy Seizures Classification using Deep Learning	**Ongoing**
					Anurag Jagetiya	2020	Design of an Effective Machine Learning Model for Breast Cancer Prediction	**Ongoing**
					Priyanka Sharma	2020	Comparative Analysis and Performance Assessment of ML Techniques for Yield Forecasting	**Ongoing**
					Nitesh Kumar Jangid	2019	IoT based context-aware access control for Enterprise IT Systems	**Ongoing**
2	SUNIL DHANKHAR	PhD (2022)	2023	YES	Vinay Kumar Mishra	2024	**Not decided Yet**	**Ongoing**
					Roop Singh Meena	2024	**Not decided Yet**	**Ongoing**
3	SUNITA GUPTA	PhD (2016)	2018	YES	Harpreet Singh Gill	2018	Design Interpretable Deep Neural Network for Assisting in Anti-Money Laundering	**Ongoing**
					Abhishek Kumar	2023	Machine Learning Methods in Smart	**Ongoing**

							Buildings	
4	MEHUL MAHRISHI	PhD (2022)	2023	YES	Neetu Agarwal	2020	Image classification using enhanced Deep Neural Network for crop Pests recognition	**Ongoing**
5	MUKESH KUMAR GUPTA	PhD (2017)	2017	No	Sunil Dhankhar	2017	An Efficient Approach for Automatic Text summarization of Hindi Text	**Completed**
					Amita Jangir	2018	Machine Learning Based Approaches for Prediction of Land Use and Land Cover Changes using Multispectral Satellite Images	**Ongoing**
					Pankaj Ramakant Kunekar	2018	Multiclass Epilepsy Seizures Classification using Deep Learning	**Ongoing**
					Kanak Giri	2020	Improving Intrusion Detection Systems Resilience Using Feature Engineering and Metaheuristic Algorithms	**Ongoing**
					Neetu Agrawal	2020	Image classification using enhanced Deep Neural Network for crop Pests recognition	**Ongoing**
					Nitesh	2021	IoT based	**Ongoing**

				Kumar Jangid		context-aware access control for Enterprise IT Systems	

1.3 Project/ Consultancy undertaken:

Ongoing research/sponsored research / consultancy details

Summary Sheet

S.No.	Name of Candidate	research / consultancy body	Amount in Rs.	Session
1.	Dr. Nilam	MSME	15,00,000/-	2023-24 Ongoing
2.	Dr. Yogendra Gupta	AICTE	2,00,000/-	2023-24 Ongoing
3.	Dr. Yogendra Gupta Dr. Vinay Kanungo Mr.	Dotsquares Technologies India Pvt. Ltd.	1,20,000/-	2024-25 Ongoing

1.4 Total Publications:

Year	Category	SCI/SCI-E	Scopus	Other	Total
	Research Supervisor- Journal	1	9	1	**11**
	Research Supervisor- Conference	0	1	11	**12**
2024	PhD Scholar- Journal	0	1	0	**1**
	PhD Scholar- Conference	0	1	0	**1**
	M.Tech. Scholar- Journal & Confernce	0	0	0	**0**
	Research Supervisor- Journal	9	4	2	**15**
	Research Supervisor- Conference	0	9	12	**21**
2023	PhD Scholar- Journal	1	4	0	**5**
	PhD Scholar- Conference	0	0	0	**0**
	M.Tech. Scholar- Journal & Confernce	2	0	2	**4**

2022	Research Supervisor- Journal	5	4	0	**9**
	Research Supervisor- Conference	0	9	0	**9**
	PhD Scholar- Journal	1	1	0	**2**
	PhD Scholar- Conference	0	2	0	**2**
	M.Tech. Scholar- Journal & Confernce	0	6	1	**7**
2021	Research Supervisor- Journal	8	8	5	**21**
	Research Supervisor- Conference	0	15	10	**25**
	PhD Scholar- Journal	0	0	0	**0**
	PhD Scholar- Conference	0	2	0	**2**
	M.Tech. Scholar- Journal & Confernce	0	3	0	**3**
2020	Research Supervisor- Journal	0	5	7	**12**
	Research Supervisor- Conference	0	3	3	**6**
	PhD Scholar- Journal	0	0	0	**0**
	PhD Scholar- Conference	0	1	0	**1**
	M.Tech. Scholar- Journal & Confernce	0	1	3	**4**
2019	Research Supervisor- Journal	5	2	1	**8**
	Research Supervisor- Conference	0	1	2	**3**
	PhD Scholar- Journal	0	0	0	**0**
	PhD Scholar- Conference	0	1	0	**1**
	M.Tech. Scholar- Journal & Confernce	0	0	0	**0**
	Total	**32**	**93**	**60**	**185**

1.5 Patents

1. Dr. Pankaj Dadheech, Dr. Sunil Dhankhar, Dr. Sanwta Ram Dogiwal, Mr. Mahendra Kumar Beniwal, Dr. Anjana Sangwan, "IoT based Face Mask Detecting and Body Temperature Measuring Device" Indian Patent Application Number-387735-001, 2023 , Date of Filling- 06/06/2023, Publication Date-26/04/2024
2. Mr. Manish Bhardwaj, Mr. Pawan Kumar Patidar, Mr. Sumit Kumar, Dr. Kajal Mathur, Ms. Mamta Sakpal, Dr. Budesh Kanwar, Ms. Alka Rani, Ms. Richa Rawal, Dr. Megha Gupta, " Machine Learning Based Stress Detection Device" Application Number- 407330-001, 2023, Date of Filling- 13/02/2024, Date of Publication- 05/04/2024

3. V. Kalpana, Dr M. V. Vijaya Saradhi, S. Kayalvizhi, Sayed Abulhasan Quadri, Dr. Karthikeyan Palaniappan, Dr. S. Pratap Singh, Priyanka Trikha, Dr. Krupal Prabhakar Pawar Srinivasa P, Dr. K. Baranitharan, "Artificial Intelligence and IoT based Automatic rainfall detection and alert system at early stages using rainfall threshold, WSN, Cloud and Machine learning algorithms" Indian Patent Application Number- 202241071994, Date of Filing- 13/12/2022, Publication Date- 30/12/2022.

4. Sumit Kumar Roy, Dr. Hitendra Kumar Lautre, Dr. Prakash Tanaji Wankhedkar, Dr. Kiranpal Singh Virk, Dr. Ramakrishnan Raman, Mrs.Kanchan Sudhir Gorde, R.Meenakshi, Dr. Pankaj Dadheech, Dr. Pallab Kalita, Ruhul Amin, "SYSTEM TO ASSESS AND IDENTIFY THE CASUALTY OF THE WOUND TISSUE USING ARTIFICIAL INTELLIGENCE" , Indian Patent Application Number-202221069895, Date of Filing-04/12/2022, Publication Date-30/12/2022.

5. Neha Verma, Dr. Pankaj Dadheech, Jatin Kumar Gupta, Dr. Brijesh Patel, Dr. Rityuj Singh Parihar, Dr Nagendra Tripathi, Dr. Veeresh Rampur, Sanjay Kumar Sahu, Dr. Mohit Kumar Sahu, Dr Nitin Kumar Jaiswal, "A VEHICLE-TO-VEHICLE ALERTING MECHANISM EQUIPPED SWAPPABLE ELECTRIC BATTERY SYSTEM TO NOTIFY REQUIREMENTS" Indian Patent Application Number- 202221036594 , Date of Filing-26/06/2022, Publication Date- 02/12/2022.

6. Surbhi Bhatia, Mohammad Tabrez Quasim, Shadab Alam, Mohammad Ayoub Khan, Pankaj Dadheech, Swati Chandna, Riyaz Sheikh Abdullah, Gaurav Indra, D. Shanthi, Amit Kumar Tyagi, "Character and Symbol Recognition System For Vehicle Safety", Inventor and Applicant of the Patent, US Patent Publication Number- 20220335739, Patent Application Number- 17/809,443, Date of Filing- Jun 28, 2022, Publication Date- Oct 20, 2022, International Classification: G06V 30/148 (20060101); G06V 20/62 (20060101); G06V 20/56 (20060101); G06V 10/82 (20060101); B60R 11/04 (20060101)

7. Pankaj Dadheech, Dr. Chandra Mohan, Dr. Anoop Yadav, Dr. Smriti Tandon, Dr. Romica Bhat, Harmeet Kaur Kochhar, Dr. K. Ramakrishna, Dr. Suman Kumari, Dr. Poonam Singhal, Dr. Tenzin Wangpo, Prof. Shital Gujarathi, Dr. Preeti Kulkarni, Dr. M. G. Sumithra, Dr. Pawan Kumar Rose, Prof. Ramesh Chandra Panda, "A Novel System for Wind-Powered IoT based Sustainable Organic Compost Machine", Inventor and Applicant of the Patent, South African Patent Publication Number- 2022/07879, Patent Application Number-2022/07879, Date of Filing-15/07/2022, Date of acceptance-16/09/2022, Publication & Granted Date-28/09/2022

8. Anjana Poonia, Dr. Surendra Singh Choudhary, Mr. Ankit Kumar, Mr. Rajesh Rajaan, Dr. Pankaj Dadheech, Mr. K.G. Vijayvargiya, Mr. Himmat Lal Kumawat, "Accident Notifying Device for Two Wheeler Vehicles", Inventor and Applicant of the Patent, Indian Design Patent Application Number/ Design Number-362357-001, 2022, Class-29-02, Cbr Number: 200456, Date of Registration/ Date of Filing (Cbr Date)- 11/04/2022, Publication Date- 23/09/2022, Design Accepted and Published, Publication Number (Journal No.)- 38/2022 and Journal Date is 23/09/2022

9. Sumit Kumar, Dr. Budesh Kanwer, Manish Bhardwaj, Ms. Neha Choudhary, Ms. Shefali Parihar, Muskan kumara, "IOT based facemask detecting and body

temperature measuring device", Indian Patent Application Number- 364106-001 , Date of Filing- 12/05/2022,Publication Date- 23/09/2022

10. Jitendra Kurmi, Dr. Dilip Kumar Sharma, M. K. Sharma, Dr. Ajendra Sharma, Dr. Sanjeev Kumar, Nitesh Dhiman, Dr. Omkar Suresh Vaidya, Dr. Ruchi Gupta, Dr. Subba Rao Polamuri, Ankit Porwal, Priyanka Sharma, Ajay Bhardwaj, "MACHINE LEARNING-BASED METHODOLOGY FOR DATABASE MIGRATION IN CLOUD COMPUTING ENVIRONMENT", Indian Patent Application Number- 202211052282 , Date of Filing- 13/09/2022,Publication Date- 16/09/2022

11. Sanjay Gour, Ms. Rekha Kushwaha, Ms. Bhawna Kalra, Dr. Jaivardhan, Ms. Jeba Nega Chelta, Mr. Chetan Mali, "A MULTI-LAYER NEURAL NETWORK BASED SYSTEM FOR VEHICLE-TO EVERYTHING COMMUNICATION IN 5G NETWORK" Indian Patent Application Number- 202211052282 , Date of Filing- 13/09/2022,Publication Date- 16/09/2022

12. CMA Dr. Kinnarry Thakkar, Pankaj Dadheech, Dr Mahesh Ramakant Patil, Krushnavadan Ramjibhai Parmar, Basant Lal, Dr. Abhijit Dey, A Ambikapathy, Dr. Himabindu, Dr. K. Kavita, Prof. Ramesh Chandra Panda, Dr. P. Karthigeyan, "Wi-Fi based Oxygen Concentrator", Inventor and Applicant of the Patent, Indian Design Patent Application Number/ Design Number-346741-001, 2021, Class-24-02, Cbr Number: 205600, Date of Registration/ Date of Filing (Cbr Date)- 26/07/2021, Publication Date- 06/05/2022, Design Accepted and Published, Publication Number (Journal No.)- 18/2022 and Journal Date is 06/05/2022

13. Indra, Gaurav; Sinha, Divyanshu; M., Parvathy; M., Ravinder; Mekala, Sreenivas; Dadheech, Pankaj; Dubey, Arun Kumar; Agarwal, Anurag; Singh, Neetu; Mishra, Rashmi; Kumar, K. Vetrivel; Nagajothi, V.; G., Pavithra and Manjunath, T. C., "Intelligent System & Method for Home Surveillance with Warning of Robber Activities Using IoT & Artificial Intelligence Approach", Inventor and Applicant of the Patent, Australian Patent Publication Number-2021105181, Patent Application Number-2021105181, Date of Filing-09/08/2021, Publication & Granted Date-20/04/2022, Term of Patent: Eight years from 9 August, 2021.

14. Pankaj Dadheech, Praveen R.Kshirsagar, Ashim Bora, M. M. Khanapurkar, Umakant Bhaskar Gohatre, Hariprasath Manoharan, Bui Thanh Hung, "IoT Enabled Device for Monitoring Oxygen and Blood Pressure in Human Body", Inventor and Applicant of the Patent, Indian Design Patent Application Number/ Design Number-355475-001, 2021, Class-24-01, Cbr Number: 211232, Date of Registration/ Date of Filing (Cbr Date)- 24/12/2021, Publication Date- 04/03/2022, Design Accepted and Published, Publication Number (Journal No.)- 09/2022 and Journal Date is 04/03/2022

15. Dr. Pankaj Dadhich, Smart Monitoring Apparatus for Transport of Alive Fish based on Internet of Things Sensor. Patent No. : 20 2021 105 406.9

16. Mr. Ankit Kumar, Holonomic Drive Conveyor System and its Method Using IoT. Patent No. : 2020104116

17. B, Ebenezer Abishek. DR; Dadheech Pankaj DR; Devaneyan, S.Pradeep DR; Joshi, Hitesh DR; Kshirsagar, Pravin R. DR; M, Lakshmanan. DR; M, Palanivelan. DR; Manoharan, Hariprasath DR; Monisha, M. DR; P, Vijayalakshmi. DR; Peroumal, Vijayakumar DR; Pravallika, Sirigireddy MRS; Sahoo, Santosh Kumar DR; Sasikala,

K. DR; Sekar, V. DR; V, Noor Mohammed. DR; Vijayalakshmi, A. DR; W, Razia Sultana DR; kumar, Chinnapalli Likith MR, An IOT Based Tyre Pressure and Temperature Monitoring System. Patent No. : 2021100287

18. Dr. Meenakshi Nawal, Dr. Sunita Gupta, Tushar Mehrotra, Dr. Neha Janu, Dr. Neelam Chaplot, Dr. Deepika Shekhawat. Intelligent Stock Trading Using Machine Learning and AI-Based. Patent No. : 202111052905

19. Dr. Shalini Puri, Dr. Meenakshi Nawal, Rohit Goyal, Dr. Sunita Gupta, Tushar Mehrotra, Amit Kumar, Alok Misra, Neha Verma. Automatic Fraud Detection in Mobile Money Transactions using Machine Learning. Patent No. : 202111043019

20. Dr. A.Narasima Venkatesh, Dr. Basant Kumar Veram, Mr. Anil Kumar Tanwar, Dr. S. Vimal, Mrs. Blessy Y M, Dr. Shilpa K Gowda, Dr. Mukesh Kumar Gupta, Mrs. Jayashree M Kudari, Mrs. Adlin Jebakumari S, Dr. Arun Kumar G L. IOT Based Automated System for Freeway Framework 3. Patent No. : 202141039583

21. Dr. Swapnila Roy, Mahuya Das, Dr. Arun Solanki, Dr. Shweta Tripathi, Dr. Anuj Kumar Singh, Mr. Sandeepan Saha, Deepak Kumar, Dr. Shashank Srivastav, Manu Phogat, Dr. Pankaj Dadheech, Subhajit Kundu, Dr. Sayan Roy Chowdhury. A Novel Solar Assisted Defluoridation Device Using Langmuirisotherm Model for Fluoride Free Drinking Water. Patent No. : 202131026317

22. Dr. C Murugamani, Dr.Basant Kumar Verma, Dr. Manmohan Sharma, Mr. Parveen Kumar Sharma, Dr. Pankaj Dadheech, Mrs. Swathi Pai. M, Dr. C. Pradeep, Dr. Ashish K. Sharma, Dr. Meenakshi R, Prof. R. S. Salaria. Bigdata for Secure Email Spam Filtering. Patent No. : 202141032077

23. Jain, Praveen Kumar; Choudhary, Pooja; Agarwal, Ankit; Singh, Satendra; Zafar, Rukhsar; Arora, Swati; Saharia, Ankur; Janu, Neha; Choudhary, Manju; Jain, Pooja. Internet of Things(IoT) sensors - based system for child monitoring & method thereof. Patent No. : 2021104782

24. Dr. Reena Grover, Dr. Pankaj Dadheech, Dr. Anup Pradhan, Dr. Vivek Tyagi, Dr. Viresh Sharma, Dr. Rashmi Mishra, Prashant Kumar. Digital Microscope USB Connector. Patent No. : 344241-001, 2021, Class-16-06, Cbr Number: 203941

25. Rajeshkumar, S. Sadesh, S. Gokulraj, R.Venkatesan, T. Priyadarsini, Pankaj Dadheech, Hitesh Joshi, Rajesh Rajaan, Sanwta Ram Dogiwal, Sudhir Kumar, S. Sudhakar. A Low-Cost 4G Smart Phone Detector and Jammer System GSM-900 MHz and 1800 MHz for Using Matlab Simulink. Patent No. : 202041026105

26. Kshirsagar, Pravin R.; Gulati, Kamal; Dadheech, Pankaj; Manjunath, T.C.; Muthusundari, S.; Sreenivasu, S.V.N.; Chandnani, Neeraj; Chandrasekaran, Saravanan; Kumar, Kailash; Chandra, Akkaraju Sailesh; Reddy, G. Divakara; Manju, J. R.; R., Harsha; Yaseen, Syed Mufassir and Yaqoob, Syed Irfan. An Artificial Intelligence and IoT based System for Monitoring and Detection of Electricity Theft. Patent No. : 2020101562

27. Dadheech, Pankaj; Kshirsagar, Pravin R.; Devaru, Susheela Devi B.; Patil, Shamshekhar S.; Chaturvedi, Rekha; Kumar, Loveleen; Mohan, Anand; Ray, Abhra Pratip; Aljabr, Ahmad Abdullah; Kumar, Kailash; Tewari, Ranjana; Islam, Saiful; Gulati, Kamal; Neeli, Jyoti and H., Girish. An Artificial Intelligence and Internet of Things based Automated System for Animal Health Care. Patent No. : 2020101719

28. S. Magesh, K. Mahendran, V. R. Niveditha, S. Radha Rammohan, N. Jayashri, K. Sudha, R. Vidya, S. Ramesh, P. Rajaram, Pankaj Dadheech, S. R. Dogiwal. Accuracy of Open-Air Temperature Prediction by Smart Weather Monitoring System for Effective Analytics Using IoT Devices. Patent No. : 202041039505

29. Chaturvedi, Anoop Kumar; Kumar, R. Lakshmana; Islam, Saiful; Khan, Nadeem Ahmad; Khan, Afzal Husain; Manjunath, T.C.; G., Pavithra; Kumar, Kailash; Veerakumar, K.; Gulati, Kamal; Bhasin, Narinder Kumar; Dadheech, Pankaj; Sankeerthana, R.; Chakravarthy, Srinivasa L.; Ghadiyaram, Anil Kumar and Panduri, Bharathi. An Artificial Intelligence Based Automatic Cleanliness System For Physically Handicapped Persons. Patent No. : 2020103157

30. Ramesh Chandra Panda, Ashok Kumar Nanda, Pooja, Ipseeta Nanda, Nibedita Nanda, Meghraj Vivekanand Suryawanshi, Archana Kumari Prasad, Neeraj Kumar, Deepak Shivaji Dandwate, Pankaj Dadheech, Radha Priya, Miss Jumter Loya, P Karthigeyan. A Novel IoT based Disinfectant Sanitizer Tunnel. Patent No. : 202041051975

31. P.Vijaya Vani, D.Tabhita, D.Krupa Daniel, R.Muthukkumar, J.Vellingiri, Jagadeesh Gopal, K.Arivuselvan, J.Kamalakannan, J.Gitanjali, Vishwa Pratap Singh, S.R.Dogiwal, Pankaj Dadheech. Open Source Internet of Tangible Things Based Smart Device for Children with Hearing Loss using Wi-Fi Communication. Patent No. : 202041053003

32. Pankaj Dadheech, V. B. V. N. Prasad, C. G. Ravichandran, Rajesh Rajaan, S. Jayasundar, G. Saravanan, Ramya Govindaraj, T. Kavitha, Subrata Chowdhury, R. Regin, Manya Smriti. VR based Psychological and Physical Training to Girls for Self-Defense. Patent No. : 202011050375

33. D. Hemavathi, Hitesh Joshi, K. Sharmilee, P. Vijaya Vani, M. Z. M. Nomani, S. Thangam, Ramya Govindaraj, Ashwini Saini, Rajesh Rajaan, Pankaj Dadheech, Alekya Kowta, Manya Smriti. A Smart Walking System for the Elderly and Blind. Patent No. : 202041050337

34. Ankit Kumar. A Chatbot for Mental Health Improvement of Students Using Natural Language Processing and Sentiment Analysis. Patent No. : 202011010525

35. Sudhakar, S.Raju, Pankaj Dadheech, V. Priya, V. Vinoth Kumar, T. Avudaiappan, A. Syed Musthafa, C. Nallusamy, K.Prasanth, E. Punarselvam. Automated Non Invasive Blood Group Determination and Cholesterol Level Using IoT. Patent No. : 202041005771

36. Sudhakar, Pankaj Dadheech, V. Priya, A. Sagai Francis Britto, S. Ramesh, M. Divyapushapalakshmi, V. Ramachandran, Ankit Kumar, R. Parthiban, Hemant Dhabhai. IoT based Real-Time Fuel Efficiency and Monitoring System for a Smart Vehicle Using Mobile Device. Patent No. : 202041007612

37. Suresh Kumar, A. Vijayaraj, S. Sudhakar, N. Suganthi, P. T. Vasanth Raj, V. Prasathkumar, Pankaj Dadheech, Ankit Kumar, Hemant Dhabhai, S. K. Aruna. Image Captcha Cropping Using Symbols (ICS). Patent No. : 202041010986

38. Priya, S. Sudhakar, Jayanti Goyal, Pankaj Dadheech, Jitendra Singh Chouhan, Wilson Prakash, A. Uma Maheswari, S. Ramesh, Sudhir Kumar, Nitin Purohit, S. Sudhagar. Smart Traffic System for Emergency Vehicles Using IoT. Patent No. : 202041011771

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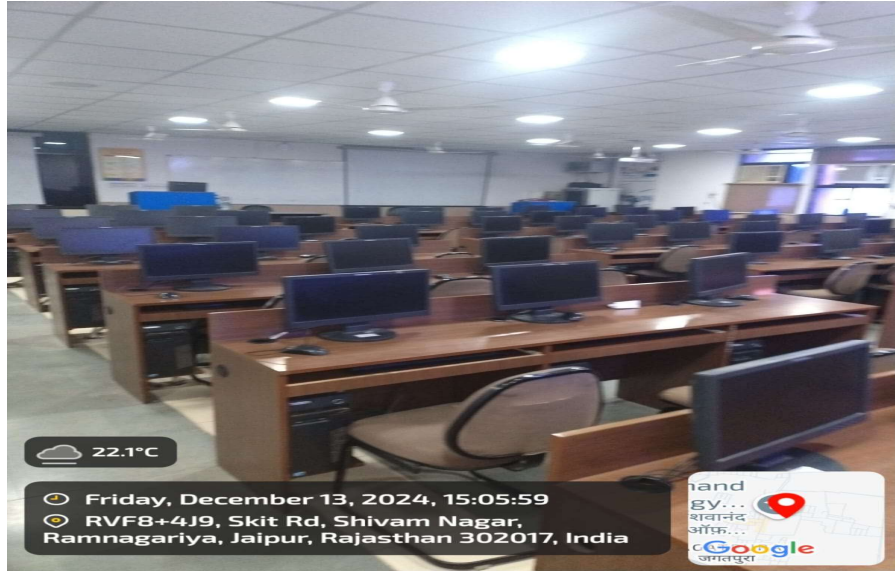
2. Research Facilities:
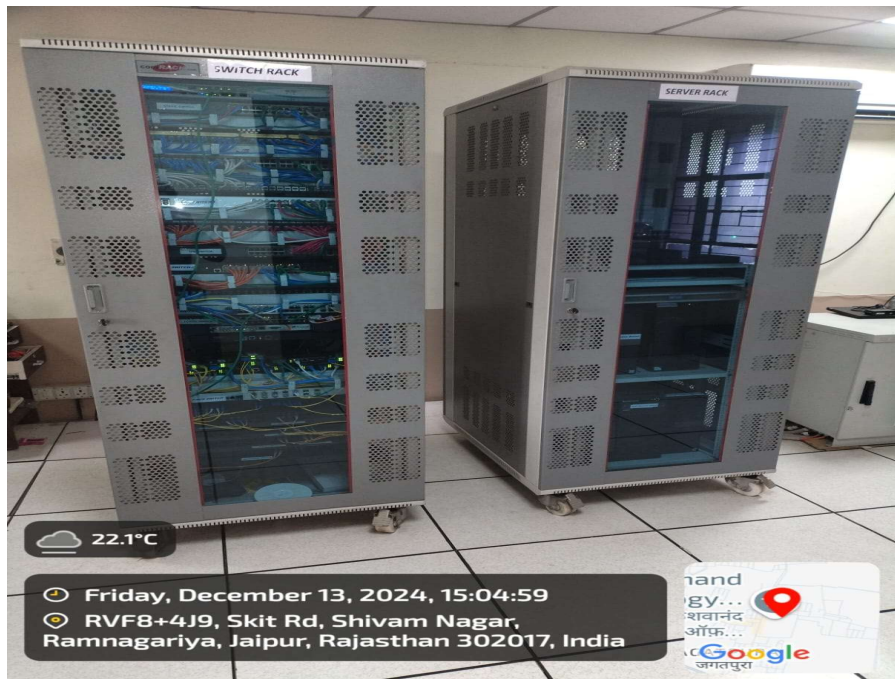
Details of the Research laboratories in the department

1. Research & Development Lab

2. IBM Centre of Excellence Lab

3. High Performance Computing Centre

4. Microsoft Cloud Competency Centre Lab

(i) Major equipment

S. No.	Name of Equipment	Laboratory
1	Lenovo desktop computers	IBM, IAI Lab
2.	Rack, Switch	IBM, Microsoft & SUN Lab
3.	06 KVA/ 240 Voltage EMERSON UPS	IBM, IAI Lab
4.	Software eScan Internet Security for SMB	IBM Centre of Excellence Lab
5.	Cisco UTM, Cisco Catalyst 2960 10/100 Manageable Switch (24 Ports & 48 Ports), Comracks 42 U, Floor Standing Rack with Cable Manager & Front Glass Door, Internet Servers, E-Scan Antivirus Server, FTP Server, Exchange Server, Cisco Catalyst 2960 1 Gbps Manageable Switch (24 Ports)	High Performance Computing Centre

(ii) Computational facility

S.No.	Type of Computers	Laboratory	No. of Computers
1	Make Lenovo: Intel[R] Core[TM] i3 – 4130, CPU @ 3.40 GHz, 2 GB DDR-3 RAM, 500 GB HDD, 18.5" Lenovo LCD, Lenovo Keyboard, Optical Lenovo Mouse	Research & Development Lab	32
2	Make Lenovo Intel[R] Pentium[R]CPU, G630 @ 2.70GHz, 2.69GHz, 2 GB DDR-3 RAM, 500 GB HDD, 17" Lenovo Color Monitor, Lenovo	Microsoft Cloud Competency Centre Lab	35

	Keyboard, Optical Lenovo Mouse		
3	Make IBM Lenovo: Intel[R] Core[TM]2 Duo CPU, E7500 @ 2.93 GHz, 3 GB DDR-2 RAM, 320 GB HDD, 18.5" Lenovo Color Monitor[TFT], Lenovo Keyboard, Optical Lenovo Mouse	IBM Centre of Excellence Lab	30

(iii) Details of application Software

1. Rational Portfolio (RAD, RFT, RPT)
2. WAS-IBM
3. RSA
4. Microsoft MSDN- unlimited
5. TC++
6. JDK (1.6 or above)
7. Ms Office (2007 or above)
8. DB2-IBM
9. Eclipse-IBM
10. Netbeans 6.5
11. My SQL Server
12. E-Scan Antivirus
13. OLTP Server (Only in IBM Lab)
14. Dual Operating System (Windows XP or Wnidows 8 or Windows 8.1, Linux or Suse or Fedora)

(iv) Internet bandwidth & type of connection

Internet Bandwidth: 1Gbps Speed 1:1
Type of Connection: FOC Leased Line with redundant RF Link.

3. Collaboration:

- Infosys is our premier partner in our industry initiatives, and since last 13 years we are working with Infosys toward producing industry ready engineers. SKIT has set the benchmark in Foundation program rollout, which is recognized by Infosys. Campus Connect is an industry-academia partnership launched by Infosys Technology Limited. The campus connects initiative aims to enhance the education level of engineering students, national wide and thus increase the Employability of this Engineer. As a part of this initiative Infosys share with Partner Colleges its proven courseware, methodology and education experiences, Campus Connect thus helps partner colleges groom Industry Ready engineer.
- IBM India Ltd is our regular industry partner and since last 9 years they are assisting us to enable our students and faculties, towards industry readiness, and has established IBM Software Centre of Excellence (CoE). To support above research areas, our High Performance Computing Lab is equipped with IBM high-end blade servers, and Hardware/Software with IBM benchmarking and testing support. This is a great initiation by IBM people to bring down the gap between education institute and industry. IBM software center of excellence gives not only the practical hand to the students but also the opportunity to become professionally certified.