



POORNIMA

COLLEGE OF ENGINEERING

Approved by AICTE

Affiliated to Rajasthan Technical University, Kota

Recognized by UGC under Section 2(f) of the UGC Act, 1956

4.1.1 Center of Excellence in Artificial Intelligence and Big Data

ISI-6, RIICO Institutional Area, Sitapura, Jaipur-302022 (Rajasthan)

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**OFFICE OF THE DEAN ACADEMIC AFFAIRS
RAJASTHAN TECHNICAL UNIVERSITY**

AKELGARH, RAWATBHATA ROAD, KOTA-324010

Ph-0744- 2473015, website : www.rtu.ac.in, email : dean.academic@rtu.ac.in

RTU/Acad./F(17)14/2021/3646

Date: 28.06.2021

To
Principal/Director
Poornima College of Engineering
ITS-1, IT Park, EPIP Sitapura
Jaipur-302028

Sub: Recognition of Centre of Excellence in **Artificial Intelligence and Big Data**.

Ref.: 1. University letter no. RTU/F(17)Acad./2020/1414-15, dtd. 30.09.2020.
2. Your proposal dtd. 23.04.2021.

Sir

With reference to University call for proposals for establishment of Centre of Excellence, your application for recognition of Centre of Excellence in the area of **Artificial Intelligence and Big Data** was considered. On the recommendation of Expert Evaluation Team and subsequent approval of 68th Board of Inspection vide agenda no. 66.3, University has recognised the Centre of Excellence in the area of **Artificial Intelligence and Big Data** at your institute.

The modalities of operation for Centre of Excellence shall be communicated in due course of time.

Yours sincerely

(Prof. D.K. Palwalia)
Dean, Academic Affairs



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Vision: To be the leading research institute in the Area of AI & Big Data in the state of Rajasthan and upliftment of other institutions and their stakeholders.

Objectives of setting up RTU COE in AI & Big Data:

1. To impart knowledge about AI & Big Data to the students and the faculty from the institutions across Rajasthan.
2. To make the resources available to advanced learners and researchers for developing solution to any societal, industrial and environmental applications using AI & Big Data.
3. To create project-based learning environment in and around the institute across the state of Rajasthan.

Physical Resources Available

1. Artificial Intelligence Lab I:

This lab is established in the year 2017 in a space of 1500 Square Feet having:

Hardware: Lenovo Think Station P310, Microsoft Windows 10 Pro, Intel(R) Core (TM) i5- 6400CPU @ 2.70GHz, 2712 MHz, Core(s), 4 Logical Processor(s) and Memory (RAM) 8.00GB [72 Nos.]

Software: All open-source AI & Big Data tools with an access to virtual processing and software resources.

IBM Tools & Access- Cognos, BI, Bluemix

2. Artificial Intelligence Lab II:

This lab is also established in the year 2017 in a space of 600 Square Feet having:

Hardware: Lenovo Think Station P310, Microsoft Windows 10 Pro, Intel(R) Core (TM) i5-6400CPU @ 2.70GHz, 2712 Mhz, Core(s), 4 Logical P



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Memory (RAM) 8.00GB. [42 Nos.]

Raspberry Pi Model 3, with case and NOOBS on Micro SD 16 GB Card, Sensors and other accessories. [50 Nos]

Software: All open-source AI & Big Data tools with an access to virtual processing and software resources.

IBM Tools & Access- Cognos, BI, Bluemix.

3. Training and Learning Provisions:

- Well-furnished meeting room with TV screen for video conferencing.
- Furnished Training room with Projector, Screen, White Board and furniture.
- Working and learning space furnished with tables, chairs, power plugs and internet connectivity.

Virtual Resources

1. In collaboration with IBM

Artificial Intelligence Lab I and II were established in the year 2017 when Poornima College signed MoU with IBM to train students and faculty in the area of Cloud Computing and IoT. Since 2017 students and faculty members are being trained in following three areas;

- a. Internet of Things (IOT) Lab for Application Development & Deployment using IBM BlueMix;
- b. Cloud Computing Lab for App Development & Deployment for Cloud using IBM BlueMix;
- c. Business Intelligence Lab for Learning Business Intelligence using IBM Cognos BI;
- d. Participant are able to use the IBM software in the lab for their non- commercial research interests;
- e. Participant receive the printed course material
- f. Participant have access to various IBM online forums for additional study material.



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and resources to interact with experts & participate in discussions;

- g. Participants receive certification from IBM at the completion of the course;
- h. IBM Experts provide real world challenges for project experience & also mentor the participants through the various phases of these projects.

Application Development and Deployment for Cloud using IBM Bluemix:

Built on Cloud Foundry open-source technology, Bluemix makes application development easier with Platform as a Service (PaaS). Bluemix also provides prebuilt Mobile Backend as a Service (MBaaS) capabilities.

Learning Business Intelligence using IBM Cognos:

BI Module 1: IBM Cognos Insight: Analyze and Share Module 2: IBM Cognos Business Intelligence Advance.

IoT Application Development and Deployment using IBM BlueMix:

All the students of II, III- and IV-year's students of all disciplines are opting for any one option every year and are being trained.

2. In Collaboration with Microsoft:

MoU has been signed with Celebal Technologies Jaipur in January 2020 to get access to Microsoft processing resources and tools.

Celebal Technology Jaipur is in general collaborating with Poornima College of Engineering from 2018 in terms of training and hiring the students.

Microsoft resources available to the students and faculty are;

- Virtual Machines, Azure Tools and Services
- 5TB Blob Storage, Azure Credits for Azure services, AI/ML/DL Tools access
- High End Virtual Machines and Azure Credits with latest Data Science, AI and Deep Learning Tools
- Learning of multiple aspects and languages like: Big Data, Chatbots, Enterprise Integration, Python, Databricks, Power BI, Power Apps



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- 5TB Blob Storage
- Microsoft Azure Certifications by faculty and students
- App Service Plan
- Application Insight
- SQL Database
- Azure Data Factory
- SQL Server
- Azure Database for MySQL
- Web App Bot
- App Service
- Azure Synapse
- Azure Consumption: 60,000 Units for year 2021

3. SAP: MoU with SAP University Alliance

Poornima College of Engineering has signed MoU with SAP University alliance in January 2021 for utilizing SAP online resources to train faculty and students.

Training resources are as under;

- Overview of SAP's vision of the Intelligent Enterprise
- Basic concepts of an ERP solution based on S/4HANA system
- SAP Fiori User Interface to interact with the S/4HANA system
- Case studies provided to understand various business processes.
- Business simulation games for SAP S/4 HANA
- Help improve knowledge of business processes



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- Dynamic environment where it accelerates time, simulates interactions with businesspartners, & automates administrative tasks execution to understand how ERP systemsare effective at managing business processes.
- Faculty training is in progress and soon we are going start student training on SAP.

Research Facilities

S. No	Name of Equipment/ Software	Laboratory	Quantity	Cost	Bill no. & Date
1	Raspberry Pi Model 3, with case	IOT Lab (COE)	30 Pcs.	114,000.00	116 31-10-2017
2	Operating System: Microsoft Windows 10 Pro Lenovo Think Station P310, Intel(R) Core (TM) i5-6400 CPU @ 2.70GHz, 2712 Mhz, Core(s), 4 Logical Processor(s) Memory (RAM): 8.00 GB HDD: 1 TB	IOT Lab (COE)	42	1919400.00	BDCS/16-17/1594 BDCS/16-17/1595 (2285000 Rs for 50 PCs)
3	GPU Server: Dell Power Edge R 750 Server CLX 4208 2P 8C/16T 2.1G 11M 9.6GT 85W 3647 R1 32GB 2933MHz DDR4 RAM NVIDIA A100 40GB Passive card	Computer Vision Lab (COE)	1	19,48521.00	Voucher No. 58
4	Higher Configuration Desktop with Graphic Card Intel Core i7 10700 F X 2 Cooler Master Cabinet SMPS 600-watt Cooler Motherboard Gigabyte	Computer Vision Lab (COE)	2	2,12,457.62	BDCS/5573/21-22

Dr. Mahesh Bunde
B.E., M.E., Ph.D.

Director
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	B560M DS3H AC X 2 RAM 16 GB DDR4 2656 8TB HDD Seagate 500 GB SSD Graphic card 8gb 3050 Gaming RTX				
5	FujiFilm-FX-X-100V S-EE Digital Rangefinder Camera	Computer Vision Lab (COE)	1	1,06,245.76	BDCS/5573/21-22
6	BASLER ACE GIGE Camera	Computer Vision Lab (COE)	1	1,40,000.00	BDCS/5573/21-22
7	Einscan Pro 2X 2020 + Solid Edge Software, Multifunctional 3D Scanner	AI & Big Data Lab (COE)	1	713,900	IN21-22-088 30-03-2022

Library Resources

We have subscription to following library resources those are being used by the faculty and students while doing projects and R&D in AI and Big Data.

- IEEE IEL Online full subscription
- DELNET
- ASME for Mechanical Engineering
- J-Gate
- Scopus
- Turnitin Plagiarism check software



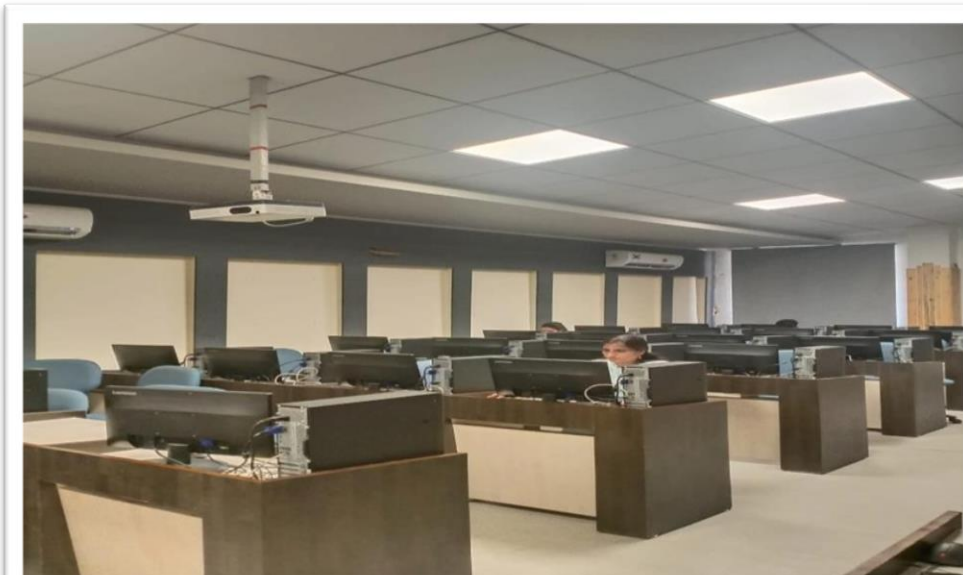
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INFRASTRUCTURE PICS



AI Lab 1



AI Lab 2

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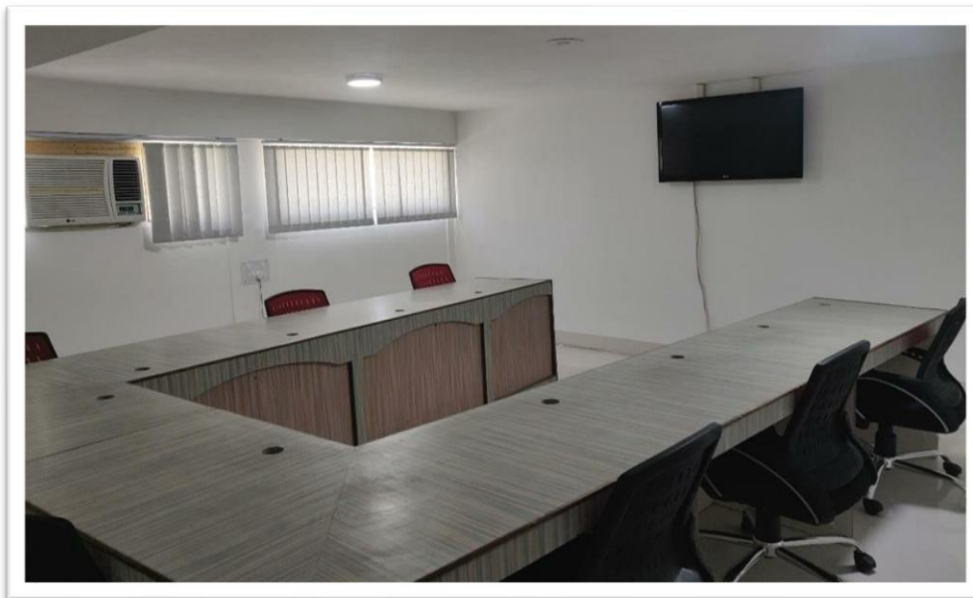


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Centre First Floor Entry



Meeting Room

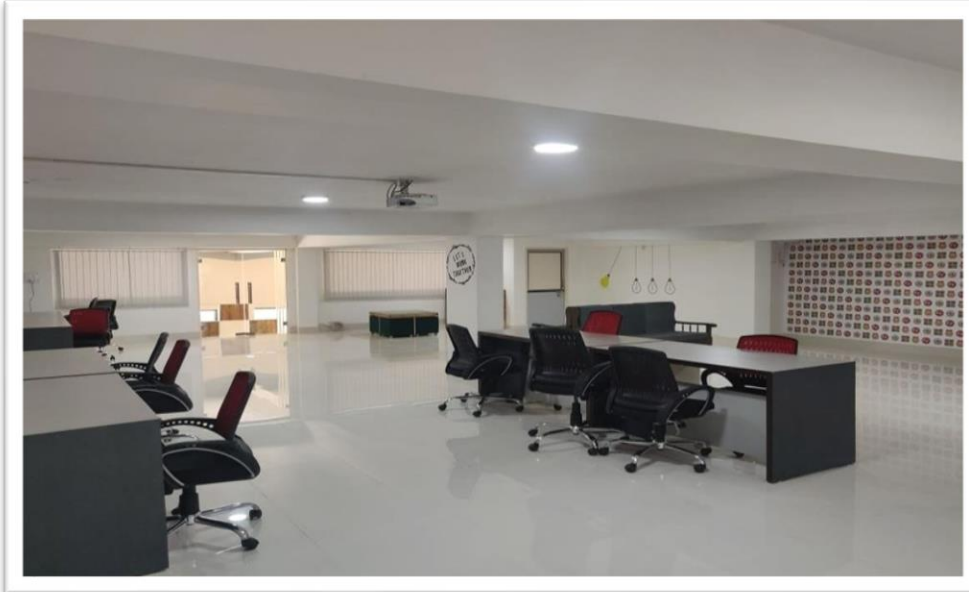
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Working Space



Reference Section

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Digital Rangefinder Camera & DSLR Cameras:

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3D Scanner AI & Big Data Lab (COE)


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