

About Institute

Acropolis is the strongest academic Institute with state-of-the-art infrastructure and is known for best placements in central India. Since its establishment in 2005, Acropolis has been the most preferred Institute for engineering aspirants to pursue their career in engineering. We nurture our students in all important aspects of learning including Technology, Innovation, Research and Entrepreneurship. Our rigorous career development programs make them capable of achieving their dreams. The Institute is approved by AICTE, New Delhi and affiliated to RGPV Bhopal and DAVV Indore offering Bachelor's and Master's Degree in Engineering, Management and Science. The Institute has tie-ups with premier IITs (Delhi & Bombay) for Academic Excellence in the areas of Virtual Labs, e-Yantra, etc. Our Technology enabled Flipped Classroom pedagogy enhances the student engagement in the classroom and make them focused on the practical aspects of the subject. The institute has created, dedicated Special Interest Groups (SIGs) to enable the faculty and staff to work on the latest technologies in the newly established State of the art Lab Infrastructure for Apple iOS application development, AWS Cloud Computing, Artificial Intelligence, IoT, etc.

About Department

The department of CSE was established in 2005 with the objective to build an environment for the students to excel in education and research. The department has been accredited by the National Board of Accreditation till 2021. There has been consistent development in all the academic spheres including research and development, infrastructure, faculty staff and student strength. Well-equipped laboratories with high-end computers, high-speed internet facility and well-qualified experienced faculty members ensure excellent standards of education delivered by the department. The department is committed to give students an environment where they develop their critical thinking and problem-solving skills as they advance through the program. To incorporate the latest technologies, the department has collaboration with industries and have signed MoU with Amazon AWS, Ui-Path, Oracle, and Microsoft etc.

Course Objective

With the advent of the Digital Era and data-driven research paradigm, Data Science is evolved as a global agenda for scientific research. The program has been designed to offer an appropriate blend of concepts and practical knowledge. Machine learning is the main toolkit for Data Science in predicting classification or regression. The program will cover Artificial Intelligence and Machine Learning techniques along with data virtualization techniques with pertaining tools and technologies. It allows participants to acquire deep insights and knowledge by providing a firm foundation about various practices which being followed in the area of Data Science. The increasing demand curve for data science professionals to manage the large set of data in various organizations has raised a set of endless opportunities. The knowledge gained via this short term training program will surely be helpful for participants to become a true professional in the field of data science.

About STTP

Short Term Training Program (STTP) intends to conduct faculty trainings through financial assistance from AICTE (under AQIS scheme) to enable faculty members in the field of technical education to introspect and learn techniques that can help prepare students for active and successful participants in a knowledge society. This STTP will definitely enhance the knowledge of every researcher, faculty and students working in Data Science area. The participants will also be able to gain practical knowledge during the practical session to be conducted during hands-on.

Contents

Introduction to Data Science and its significance, Role and responsibilities of data scientists in industries, Mathematical and statistical foundations required to understand Data Science and data analysis, Implementation basics of data science which includes Scientific Computing with Python (Scipy), Numpy, along with visualization tools for effective interpretation of data using python. Data manipulations with pandas, Supervised learning algorithms: linear regression, logistic regression, SVM and their implementations

along with applications, Neural Network and Multi layered Neural network, Data Science and Financial Modeling. Unsupervised learning algorithms: K-Means, C-Means, Apriori Recommendation Systems, Anomaly Detection, Implementation of unsupervised learning algorithms in python.

Course Outcomes

1. Providing an exposure to Data Science and its applications.
2. Attaining hands on skills for developing applications using tools and technologies like Python.
3. Understanding of Machine learning algorithms along with data visualization tools and techniques.
4. Knowledge of algorithms applying on real data sets to infer and deduce insights.
5. Identify and explore the research issues and challenges in data science.

Resource Persons

1. Dr. Deepak Garg, Professor & Head, CSE Bennett University
2. Dr. Sandhya Nadela, Professor, CSE VNRVJIET, Hyderabad
3. Dr. M.Venkatesan, Professor, Mathematics National Institute of Technology Karnataka
4. Dr P Venugopal, Associate Professor & Head SSN College of Engineering, Kalavakkam
5. Dr. Padmpriya, Associate Professor, SSN College
6. Mr. K K Rathi, Director, Sanchay Cloud Infosoft
7. Dr Sanjay Kumar Panda, Assistant Professor, CSE NIT Warangal
8. Dr. Suraj Sharma, Assistant Professor IIIT Bhubneshwar.
9. Mr. Gagan Deep, Director Rozy Computech Services Kurukshetra
10. Mr. Vikas Tyagi, Sr. Data Scientist, Rydotinfotech
11. Prof. Upendra Tiwari, Assistant Professor, ABES Ghaziabad.