

**One week virtual  
Faculty Development Program  
on  
DATA SCIENCE AND ITS APPLICATIONS  
(FDP - DSA)**

**10th - 15th June 2021**

Organized by  
**DEPARTMENT OF  
COMPUTER SCIENCE AND ENGINEERING**



**SAGI RAMA KRISHNAM RAJU  
ENGINEERING COLLEGE (AUTONOMOUS)**

BHIMAVARAM-534204, W.G.Dt., Andhra Pradesh  
( Accredited by NBA & NAAC, Affiliated to JNTUK, Kakinada)  
( Recognized as Scientific and Industrial Research Organization(SIRO))

Website : <https://www.srkrec.ac.in>

**About Institute :**

Sagi Rama Krishnam Raju Engineering College (SRKREC) is one of the oldest seminaries established in 1980 to provide a better-quality technical education in rural area. It is a co-educational college registered under the section of 2(f) of the U.G.C. Act and eligible to receive central assistance under 12(b) of U.G.C and recognized by A.I.C.T.E. The college is affiliated to JNTUK Kakinada, attained autonomous status, accredited by NBA and NAAC 'A' grade by scoring 3.6 in 4-point scale. The institute has placed for several years in the top hundred-priority list in the engineering disciplines published by National Institutional Ranking Framework (NIRF), MHRD, and Govt. of India. We are proud to say that, it is the merely SRKREC is a private engineering college from Andhra Pradesh listed amid the top 100 academic institutions in India

**About CSE Department :**

Department of Computer Science and Engineering, was established in the year 1991 with B.Tech. (CSE) program and an intake of 40. It has grown rapidly over the last three decades with intake increased to 300 by 2016. It has started M.Tech(CST) in the year 2006 with an intake of 18 and increased to 36 by year the year 2011. Jawaharlal Nehru Technological University Kakinada (JNTUK) recognised the department as research centre. The department has all the necessary infrastructure, highly qualified and experienced faculty for a better teaching learning experience to students. The department has well equipped laboratories , research labs, seminar halls and e-class rooms and other classrooms. The strength of the department is the faculty with 66 faculty out of which 12 doctorates, 11 are about to finish their Ph.D., another 10 are registered for Ph.D. and the remaining have M.Tech Qualification. Our students are placed in MNCs all over the globe and they are another asset of our department.

## About FDP :

The dominance of Data Science and Innovation is a world-leading program of study in analytics and data science. Taking a trans-disciplinary approach, the way utilises a range of perspectives from diverse fields and integrates them with industry experiences, real-world projects and self-directed study, equipping graduates with an understanding of the potential of analytics to transform practice. The way it delivered in a range of styles, including contemporary online and face-to-face. The Faculty Development Program on Data Science and its applications will be delivered via Online platform and immerse learners with real-world examples from experts at Industry and Academia foremost organizations.

### OBJECTIVES :

- Data science is the domain of study that deals with vast volumes of data using modern tools and techniques to find unseen patterns, derive meaningful information, and make business decisions.
- Data science uses the complex machine learning algorithms to build predictive models.

### OUTCOMES :

By the end of the FDP, participants will be able to:

- Understand the modern data science landscape and technical terminology for a data-driven world.
- Recognize major concepts and tools in the field of data science and determine where they can be appropriately applied.
- Appreciate the importance of curating, organizing, and wrangling data.
- Explain uncertainty, causality, and data quality and the ways they relate to each other
- Predict the consequences of data use and misuse and know when more data may be needed or when to change approaches.

### TOPICS TO BE COVERED:

- Data Science, Real-life examples and Applications, Data Scientist roles, Machine Learning vs. Data Science vs. AI, Machine Learning types, and Generics of ML approaches.
- Linear Models, Design of Experiments.
- Building Machine Learning Algorithms, Underfitting & Overfitting.
- Supervised, Probabilistic Supervised and Unsupervised Learning.
- Deep Forward Networks, Hidden Units, Convolutional Neural Networks, Recurrent Neural Networks, Adversarial Networks and Architectural Design.
- Real Time applications of Data Science: Classification and Regression Approaches, Ensemble Approaches and Optimization Techniques
- Application of Azure Services for Solving Real Time Problems.
- Hands-on Practice on Pycaret (Automated Machine Learning Library) using Jupyter Notebook.
- Data Generation using Modelling & Simulation For Machine Learning.
- Case study on Machine Learning and role of IoT based products in industry.

## RESOURCE PERSONS :

- **Mr. Krish Naik**, Data Scientist, Co-founder At iNeuron.ai , You Tuber (250k+ Subscribers) Bangalore.
- **Dr. Bushra Husain**, Associate Professor, Womens College, Dept of Statistics & Operations Research, Aligarh Muslim University, Aligarh.
- **Dr. N.J.Rajaram**, Ph.D (CSE), IITBombay, CEO, Apparel & Textile Parks, Govt. of Telangana, Hyderabad.
- **Mr. K. Chaitanya**, Principal R&D Engineer, Open Stream Inc, Hyderabad.
- **Mr. Pruthvi Raj Venkatesh**, Principal R&D Engineer, Open Stream Inc, Bangalore.
- **Dr. Prasanth S Rana**, Ph.D (CSE), Associate Professor in CSE, Thapar Institute of Engineering & Technology, Thapar.
- **Dr. Suvarna Eknath Pawar**, Ph.D. in AI and ML, Research Head and Associate Professor, Vishwakarma Institute of Information Technology(VIIT), Pune.

### CHIEF PATRONS

**Sri S PRASADA RAJU**,  
President, SRKREC Association

**Sri P KRISHNAM RAJU**,  
Vice-President, SRKREC Association

**Sri G RAMA RAJU**,  
Vice-President, SRKREC Association

**Sri S V RANGA RAJU**,  
Secretary-cum-Correspondent, SRKREC Association

**Sri Dr. K S VIJAYA NARASIMHA RAJU**,  
Member-Governing Body, SRKREC Association

**Sri S R K NISHANT VARMA**,  
CEO & Member-Governing Body, SRKREC Association

**Sri S ATCHUTA RAMA RAJU(MANOJ)**  
Member-Governing Body, SRKREC Association

### PATRONS

**Sri K JEEVA SAGAR**, IFS  
Director- SRKREC

**Dr. M JAGAPATHI RAJU**  
Principal- SRKREC

### CO-PATRON

**Prof. P A R K RAJU**  
Dean- R&D- SRKREC

### CONVENOR

**Dr. V CHANDRA SEKHAR**  
Associate Prof. & Head - CSE Dept

### COORDINATORS

**Dr R N V JAGANMOHAN**  
Associate Prof. - CSE Dept

**Dr. G N V G SIRISHA**  
Assistant Prof. - CSE Dept

**Sri L V SRINIVAS**  
Assistant Prof. - CSE Dept

- Registration Fee : **FREE**
- Registration Link : [tinyurl.com/2hsjmd8p](https://tinyurl.com/2hsjmd8p)
- Contact Details : **Dr. R N V Jagan Mohan,**  
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**Note :** *Participants who attended all the sessions, submitted feedbacks and who got more than 50% marks in the objective test at the end of the FDP will be treated as successfully completed the FDP and given e-certificates*