Welcome to the **IIT Kanpur** school on PYTHON for Data Science (DS) and Data Analytics (DA). Data Science provides some of the most promising career opportunities for students/professionals and Data Science skills are highly sought-after by industry. This cutting-edge school will introduce participants to the rigorous theory, algorithms and scientific methods to derive actionable insights from large datasets. The school also includes extensive assisted PYTHON programming projects where participants will gain hands-on experience in data analysis, exploration and visualization using practical datasets and the latest PYTHON packages such as NUMPY, LINALG, MATPLOTLIB, PANDAS, SEABORN. The school also includes problem solving sessions to prepare for tests/job interviews in DS and DA.

All modules will be held on evenings and weekends for the convenience of participants. The extensive projects and PYTHON programming for DATA SCIENCE (DS), DATA ANALYTICS (DA) is of significant value to participants of all backgrounds.

**How does this program benefit YOU?**

**UG/ PG students:** Learn the latest programming techniques in PYTHON and various packages such as NUMPY, LINALG, MATPLOTLIB, PANDAS, SCIKIT-LEARN, SEABORN, together with practical DS/ DA skills!

**PhD Scholars/ Faculty members:** Use PYTHON, and various packages such as NUMPY, LINALG, MATPLOTLIB, PANDAS, SCIKIT-LEARN, SEABORN, for research and also to establish virtual labs or for project guidance in DS/ DA Technologies with real world datasets!

**Industry Professionals:** Take your skills to the next level by learning PYTHON, and various packages such as NUMPY, LINALG, MATPLOTLIB, PANDAS, SCIKIT-LEARN, SEABORN, together with principles of Module Design and Analysis using Practical Data Sets for DS/ DA Technologies!

**About the Instructor:**

Prof. Aditya K. Jagannatham is a Professor in the Electrical Engineering department at IIT Kanpur, where he holds the Arun Kumar Chair Professorship, and is a well-known expert and trainer on 5G, Optimization and Machine Learning. He received his Bachelors degree from the Indian Institute of Technology, Bombay and M.S. and Ph.D. degrees from the University of California, San Diego, U.S.A. From April ‘07 to May ’09 he was employed as a senior wireless systems engineer at Qualcomm Inc., San Diego, California, where he was a part of the Qualcomm CDMA technologies (QCT) division. His research interests are in the area of next-generation wireless networks, with special emphasis on various 5G technologies such as massive MIMO, mmWave MIMO, FBMC, NOMA, Full Duplex and others. He has published extensively in leading international journals and conferences. He has been recognized with several awards including the CAL(IT)2 fellowship at the University of California San Diego, Upendra Patel Achievement Award at Qualcomm, P.K. Kelkar Young Faculty Research Fellowship, Qualcomm Innovation Fellowship (QInF), Arun Kumar Chair and the IITK Excellence in Teaching Award.

**Target Audience**

- Ph.D. scholars pursuing research in DS/ DA technologies
- M.Tech/ B.Tech students undertaking thesis/projects in DS/ DA technologies
- Faculty members of Engineering Institutions/ Universities
- Engineers from Wireless Industry and R&D Organizations

For more details and registration information, visit the website [http://www.iitk.ac.in/mwn/DSDA2022/](http://www.iitk.ac.in/mwn/DSDA2022/)