AIM and Scope:

This Workshop aims to stimulate the intensity and need of Data Analytics among the teachers, research scholar, students and Industry professionals from different parts of the country. Since last few decades, the importance of data analysis and interpretation has increased manifold among academician and business domain. Data analytics help organizations by creating enormous amount of knowledge they need for further production and growth. The Workshop will primarily focus on providing requisite knowledge for identifying the right research problem, selection of adequate data analysis techniques, application of those research techniques, and interpretation of results. An entire session will be available for participants to discuss individual problems with the experts

Topics to be covered:

Some salient topics to be covered…

1. Introduction to Python
2. Python Operators
3. Control statements
4. Data structures/ containers of python
5. Data Wrangling
6. Data Pre-processing
7. Machine Learning (Basic overview with hands on Session)

PATRON:
Prof. Kshiti Bhusan Das
Honourable Vice Chancellor
Central University of Jharkhand

CHAIRMAN:
Prof. Arun Kumar Padhy
Dean, School of Natural Sciences, CUJ

ADVISORY COMMITTEE:
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Prof. H.P.Singh, Professor, DoWE

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Dr. Bateshwar Singh, Assoc. Prof., DoC&FS

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One Week Workshop
on
Data Analytics using Python
(Practical Approach)

25th -29th April 2022 (Online Mode)
Organized by
Department of Computer Science & Technology
(DCST)

Technical Collaboration
Division V (Education & Research)

http://cuj.ac.in/dcst/index.php
Central University of Jharkhand (CUJ)
Ratu-Lohardaga Road, Ranchi, Jharkhand

Convener
Prof. S. C. Yadav (Professor & Head, DCST)

Co-convener
Dr. Prashant Prashun (Asst. Prof., DCST)

Coordinator
Dr. Kanojia Sindhuben Babulal (Asst. Prof., DCST)
Dr. Pushpendra Kumar (Asst. Prof., DCST)

Co-coordinator
Mr. Amit Kumar Yadav (Asst. Prof., DTST)

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Who Should Attend?
Faculty Members, Research Scholar & Students from AICTE approved Institutions are eligible for the workshop.

Certification
All the participants will be provided with an E-certificate of Participation after successful completion of Workshop.

Registration fee:

Faculty / Industry	1000/-
Research Scholar/Students	750/-

Registration Process
Registration fee will be paid though online mode, the account details for this purpose is

Account Holder's Name	Central University of Jharkhand
Bank Name:	Punjab National Bank
Account No.:	7277000100004002
IFSC Code	PUNBO727700
Address of the Bank	CUJ Brambe Campus , Ranchi- 835205

Registration Link:

https://forms.gle/y7w7ruLaWu3yX3GW9

Resource Persons:
The Sessions will be handled by the experts on the subject from Industry and from Various IITs /NITs, Central Universities and R&D Labs.

Number of Candidate:
Maximum 60 participants will be allowed based on a first come first serve basis.

About The University CUJ:
The Central University of Jharkhand (CUJ) was established through the Central University Act, 2009. The University started with a vision to specially focus on relevant present age educational drives with an emphasis on research in cutting edge technologies. It offers Undergraduate, Postgraduate and Ph.D. programs in almost all its Schools/departments. The University is open to new ideas in course curricula and research proposals, collaboration, interaction, and capacity building programs. The CUJ has a great galaxy of Faculties who have been awarded National and International Fellowships, project funding and recognition. They are constantly contributing to the Government, Public and Private Sector organizations with their innovative researches, teaching in current trend and issues and consultancy. Along with faculties of the university, students have also marked a remarkable excellence at national and International area and have won accolades in national level academics and extra mural activities. At present, Central University of Jharkhand is functioning in two campuses. One is located at Brambe, a 25 km drive from Ranchi city, in the State of Jharkhand, India. And the second one which is the permanent Campus of the University is located at Cheri Manatu which is connected the main Ring Road of the City. The permanent campus is located at a very beautiful land hilly area of the city and it fascinates every visitors of the University.

About the Department CST:
The Department of Computer Science and Technology has been started in 2018 under the school of Natural Sciences. The department offers M. Tech (Computer Science and Technology) and Doctoral Program (PhD). It is the department's ambition to be internationally recognized as a leader in computer science and technology, a department with coherent activities within research, education, development and industry cooperation. Apart from that, our faculties with exceptional academic experience are dedicated to producing world leaders in the field of Computer Science and Technology.

How to Reach CUJ:

Ranchi is well connected by Roadways, Train and Airlines. City has two major railway stations 'Ranchi Railway Station' and 'Hatia Railway Station'. The city has also one airport (domestics) 'Birsa Munda Airport' and directly linked with major cities of India. From station, airport, and bus stand first reach Ratu road auto stand and take an auto for Brambe or Manatu.

Central University of Jharkhand, Ranchi-835205
Department of Computer Science and Technology
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Programme Schedule

DATE	TIME	DETAILS
25-04-2022	10:00 AM – 11:00 AM	Inaugural Function & Keynote Address on **Introduction to Data Analytics**
	11:00 AM – 12:00 NOON	**Introduction to Python**
	12:00 NOON – 12:30 PM	BREAK
	12:30 PM - 01:30 PM	**Python Operators :**(Arithmetic Operator, Relational Operator, Logical Operator **etc.**)

Dates	09:00 AM to 10:00 AM	10:00 AM to 11:00 AM	11:00 AM to 11:15 PM	11:15 AM to 12:15 PM	
26-04-2022	**Control statements:** Selection Statement	**Control statements:** Looping Statement		**List:** Creation, various functions, list traversal	
27-04-2022	**Tuple:** Creation, conversion of list to tuple, traversing, joining, slicing, other functions	**Sets and Dictionaries:** Creation of sets and their various functions	BREAK	**Python Libraries**: Numpy Introduction and Their Basic Functionality	
28-04-2022	**Pandas:** Importing various file formats, Filtering data Cleaning data, Reading /writing data	**Data Wrangling:** Gathering, Collecting, and Transforming data		**Pre-processing:** Rescaling a Feature, Transforming Features , Detecting Outliers, Handling Outliers	
29-04-2022	Introduction to Machine Learning	Supervised Machine Learning & Unsupervised Machine Learning		Implementation of various Machine Learning Algorithms on Benchmark Datasets	Valediction