Capacity Building Programme
Data Science
May 19, 2023 – June 01, 2023

Online Mode

Empowering Girls to Reduce the Gender Gap in IT and ITES Sectors in South Asia Region: Training and E-Content Development Programme

About Asi@Connect

Asi@Connect provides dedicated high-capacity internet connectivity for research and education communities across Asia-Pacific; operating at speeds of up to 10 Gbps, it currently interconnects universities and research centres in 21 countries/economies across the region. It also connects 50 million European researchers and academics served by the GÉANT network and supports collaborative programmes in areas such as earth observation, disaster warning, climate research, food security, delivery of e-health and e-learning.

About the Project

Reducing the gender gap in higher and technical education in the South Asia region is the need of the hour for the overall growth of the third world. Serious efforts are needed for greater involvement of girls in emerging technologies and future professions for the growth of the region. This project aims to bridge the gender gap in the South Asia region and create an ecosystem of collaborative learning and education by connecting people with cultural diversities and traditions. Under the project, skill development programmes for girl students and capacity building programmes for college and university teachers are being conducted. E-content development is also planned under the project in emerging areas of IT.

Project Team

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- Dr. Gaurav Trivedi, IIT Guwahati, India
- Prof. Mohammed Eunus Ali, BUET, Bangladesh
- Dr. Tulsi Gurung, Royal University of Bhutan
- Dr. Surendra Gautam, Tribhuvan University, Nepal
- Dr. Gajendra Sharma, Kathmandu University, Nepal

About the Course

Data science is a rapidly developing branch of science that has a wide range of applications, including the study and analysis of vast volumes of data. We work with intricate data that is multi-layered and complex. The three primary building blocks of data science are statistics, mathematics, and programming language. Data science uses techniques, procedures, algorithms, rules, and tools from all three of these areas to address the complex issues that arise in our environment. This course is aimed at building the capacity of aspiring teachers and researchers, for transforming the educational culture and teaching-researcher system of the Institution.

Course Contents

Introduction to Data Science, Use GitHub to manage data science projects, Introduction of Python, Python for Data Science Mathematical foundation for data science, Introduction to Probability, Regression Analysis, Practical on Regression Analysis, Hypothesis testing -I, Hypothesis Testing –II, Map-reduce and related paradigms Map reduce, Practical on map reduce, Clustering: Graph Clustering, Feature Engineering: Feature selection, Dimension Reduction, Exploratory Data Analysis Techniques ,Practical of exploratory data analysis techniques, Database: Data Models, Query languages: Structured Query Language; Database Design: Entity Relationship Modeling, Practical on Database, Descriptive Statistics and Inferential Statistics, Practical on Statistics, Inferential Statistics Unstructured databases: NoSQL Key Value store/Document Store, Tableau, Discussion on research direction in data science.

COURSE COORDINATORS

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Resource Persons

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For details visit our website
https://www.iiitdmj.ac.in/asia-connect.iiitdmj.ac.in/CBP3.html

Registration Link
https://docs.google.com/forms/d/e/1FAIpQLSelnhtpLvhKHIy5eHUUT6e356QNCTKOIjiSuG0aRdXbZ7KHvw/viewform

No Registration Fee. Course is open for faculty and research scholars. Register using the following link on or Before May 17, 2023:
Preference will be given to female applicants

Pandit Dwarka Prasad Mishra
Indian Institute of Information Technology, Design and Manufacturing, Jabalpur
(An Institute of National Importance established by an Act of Parliament)