No:ATAL/2020/1608875895

ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

Nelson Mandela Marg, Vasant Kunj, New Delhi – 110 070

AICTE Training And Learning (ATAL) Academy

Certificate

This is certified that Prof. Prachi Shashank Sutrawe, Assistant Professor of Zeal Institute of Business Administration, Computer application and reserach participated & completed successfully AICTE Training And Learning (ATAL) Academy Online FDP on "Data Sciences" from 2021-1-18 to 2021-1-22 at MSME -TECHNOLOGY DEVELOPMENT CENTRE (PPDC)..
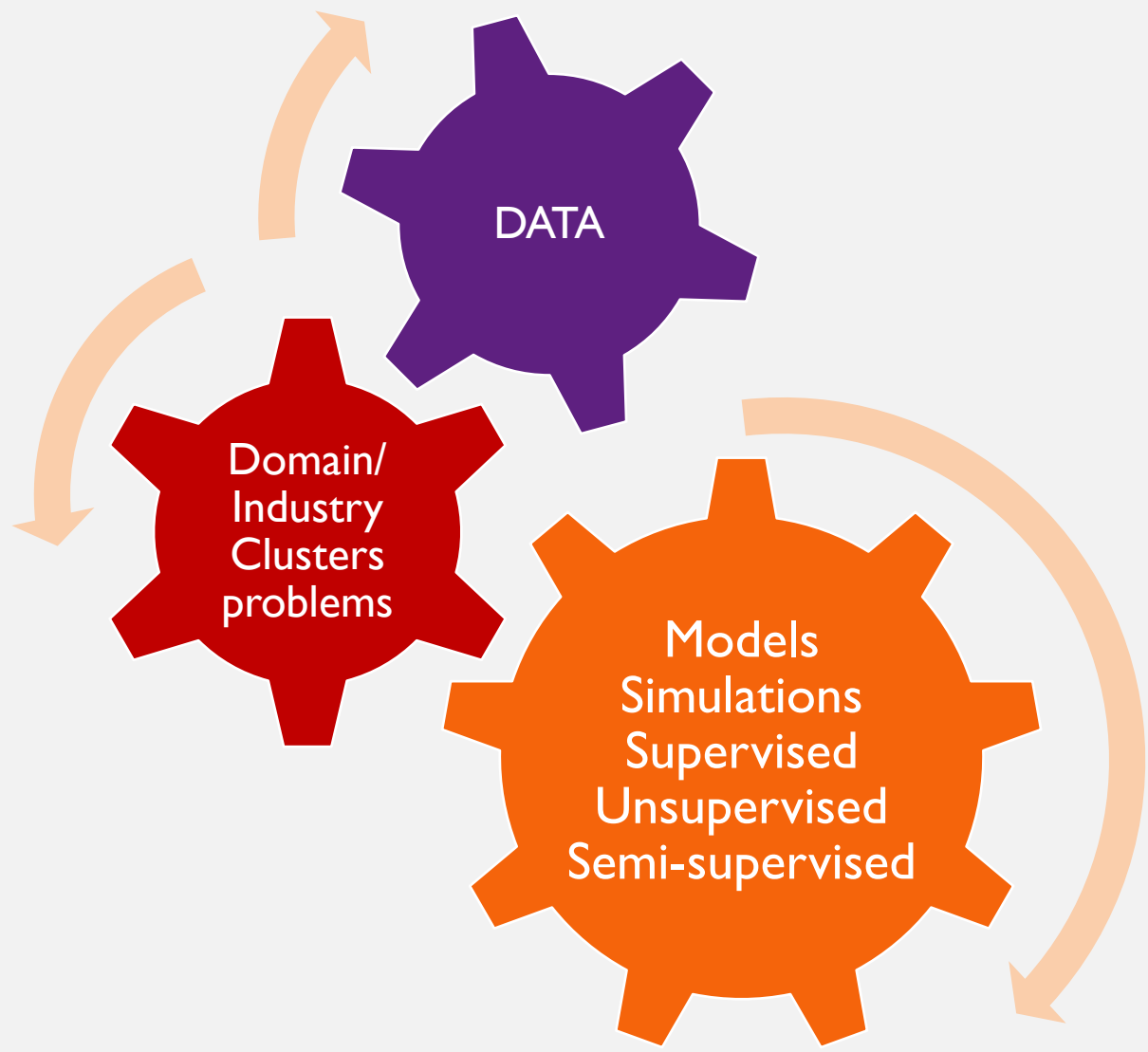
Director ATAL Academies

Coordinator

PROGRAM SCHEDULE (5DAYS)

DATA SCIENCE
(HANDS ON SESSIONS WITH INDUSTRY APPLICATION)

ONLINE GOTO MEETING

WHAT IS DATA SCIENCE?

PROGRAM HIGHLIGHTS

18th Jan to 22nd Jan 2021

PROGRAM SCHEDULE

INDICATIVE TIMING	TOPICS COVERED
SESSION-1 – (10 :00 AM- 11:30 AM) <mark>Sumit Gupta</mark>	• Program Introduction along with its Objective and Outcome. • Introduction to Data Science • How to shape DATA into Analytics • 3 Dimensions of Data Science- Domain, Data, Models
11:30 AM - 12:00 PM	TEA BREAK
SESSION-2 (12 :00 PM- 1:30 PM) <mark>Ratna Nayak</mark>	• Integrated Analytical approach – Data Management, Analytics and Visualization • Descriptive, Prescriptive, Predictive Analytics introduction • Approach to Analytical modelling • Python as technology for Data Science
1:30 PM- 2:30 PM	LUNCH BREAK
SESSION-3 (2 : 30 PM- 4: 00 PM) <mark>Brenie Shekhar</mark>	• Python IDE • Python Library • Installation of Python • Discussion on Data to be used in CASE ANALYSIS

DAY1 - 18TH JANUARY

INDICATIVE TIMING	TOPICS COVERED
SESSION-1 (10 :00 AM- 11:30 AM) Ratna Nayak	Building block of python ▪Output (String and Numerical) ▪User Input (String and Numerical) ▪Variables ▪Data Types (Numeric, String, List, Tuple, Data Dictionary)
11:30 AM - 12:00 PM	TEA BREAK
SESSION-2 (12 :00 PM- 1:30 PM) Ratna Nayak	Building block of python (Contd) ▪Operators (Arithmetic, Comparative, Logical, Assignment) ▪Decision Making Statements (If Then Else) ▪Control Statements (For Loop, While Loop) ▪Functions (Built In, User Defined like Formulas) ▪Working on Pandas & Dataframe
1:30 PM- 2:30 PM	LUNCH BREAK
SESSION-3 (2 :30 PM- 4 :00 PM) Ratna Nayak	• Introduction to DATA MANAGEMENT TECQNIQUES with "Python" – DATA & Statistical Modelling • QUALITY, STATISTICAL approach • Data Statistical processing- frequency /class fundamentals • Measure of Central tendency , Measure of deviation • Type of Data , Testing of Data • Data Quality Management and Preparation of Data

DAY 2- 19TH JANUARY

INDICATIVE TIMING	TOPICS COVERED

SESSION-1
(10 :00 AM- 11:30 AM)
Namit Pandey
	Python Data Management
	      Upload Data to Python Data Frame
	      Joining Data Frames
	      Data Quality Management

11:30 AM - 12:00 PM	Tea break

SESSION-2
(12 :00 PM- 1:30 PM)
Namit Pandey
	Python Data Management
	      Data Visualization
	      Data Statistics & Corelation

1:30 PM- 2:30 PM	Lunch break
SESSION-3 (2 :30 PM- 4 :00 PM) Namit Pandey	• Fundamentals of Regression • Types of Regression • Forming Regression relation

DAY 3 - 20TH JANUARY

INDICATIVE TIMING	TOPICS COVERED
SESSION-1 (10 :00 AM- 11:30 AM) Brenie Shekhar	• Introduction to Machine learning – • Supervised • Unsupervised • Semi Supervised
11:30 AM - 12:00 PM	TEA BREAK
SESSION-2 (12 :00 PM- 1:30 PM) Brenie Shekhar	• Introduction to Machine learning models • Linear Models • Non Liners Models
1:30 PM- 2:30 PM	LUNCH BREAK
SESSION-3 (2 :30 PM- 4 :00 PM) Brenie Shekhar	• Working on model equation formulation • Working on Interpretation of Models

DAY 4 - 21ST JANUARY

INDICATIVE TIMING	TOPICS COVERED
SESSION-1 (10 :00 AM- 11:30 AM) Navin Kumar	• Introduction of Advanced modelling techniques & principles of AI modelling using Image
11:30 AM - 12:00 PM	TEA BREAK
SESSION-2 (12 :00 PM- 1:30 PM) Navin Kumar	• AI modelling and its application in Text
1:30 PM- 2:30 PM	LUNCH BREAK
SESSION-3 (2 :30 PM- 4 :00 PM) Navin Kumar	• EVALUATION TEST • VALEDICTORY

DAY 5 - 22ND JANUARY

NAVIN KUMAR

A seasoned, result-oriented professional with 15 years of work experience of across multiple industries in the area of Predictive Modelling, Data Mining, Artificial Intelligence , Machine Learning Big Data and Business Analytics

- Statistical and Machine Learning Algorithms:

  Regression, Logistic Regression, Decision Tree, KNN, Clustering, Naïve Bayes Classifier, Deep learning, Support Vector Machine, ANN, Frequent Pattern Mining, Image/Video Analysis, Semi-Supervised Learning, Time Series Analysis and Forecasting ,Artificial Intelligence

- Text Mining, Data Crawling & NLP platform: SAS EMINER, SAS Contextual Analysis, SAS IR

- **Navin have worked with TCS, SAS India in the past**
- **Holds BE from JIIT NOIDA**

G BREINE SHEKAR

Brenie has a decade long career in Academia, Research and professional teaching. She has published large number of technical paper in International journal. She is expert in Emerging technologies.

• She has experience in Data Science and have had worked on different projects comprising of technologies as Object Detection, Faster RCNN, Natural Language Processing, LSTM, Classification, GloVe, Computer Vision, Keras, CNN, Siamese Networks, Triplet loss, Neural Networks, Deep Learning, Keras, Image Recognition, Collaborative Filtering, Recommender Systems

Brenie has worked in Academia as Assistant Professor in the past:

• Post Graduate Programme - Artificial Intelligence and Machine Learning Great Lakes and The University of Texas at Austin, McCombs School of Business
• M.E – Communication Systems Cape Institute of Technology – Anna University
• B.E – Electronics and Communication Engineering

RATNA NAYAK

Ratna is , motivated professional with over eight years' experience in industry and academia , with an interest in Data Science and Blockchain. Strong, dedicated leader with determination to achieve high standards for organizations in research, management and professionalism in Computer Engineering.

- Ratna has worked on projects involving time series modelling /Forecasting methodologies , she has been working in academia in enabling emerging technologies of AI, ML, DL & Block Chain learning for students with practical examples .She has published wide variety of papers in Indian and International context

Ratna has earlier worked as Assistant professor with Thakur College of Engineering & Technology ,Mumbai

- Post Graduate Certificate / Blockchain Technology
- Master of Technology / Computer Science & Engineering Rajiv Gandhi Proudyogiki Vishwavidyalaya, Bhopal, M.P.
- Bachelor of Engineering / Computer Science & Engineering Rajiv Gandhi Proudyogiki Vishwavidyalaya, Bhopal, M.P.

NAMIT PANDEY

Namit is Data Science Developer with expertise in PYTHON/HTML/CSS/JAVASCRIPT(Django).

He has worked on front end development using Django as the platform and deployment of advanced modeling outcomes like linear regression, clustering and correlation matrix again using Django.

He is good in Python, SQL, PostgreSQL, HTML, CSS, Django, JavaScript, Git, Automation, Data Mining.

Namit holds master in Computer Application