



National Institute of Electronics and Information Technology Chandigarh

An Autonomous Scientific Society under the administrative control of
Ministry of Electronics & Information Technology (MeitY), Government of India

Permanent Campus at Birla Farms, Bada Phull, (adj. to IIT Ropar)
Rupnagar (Ropar)- 140001

Government Officials Training GOT - Basic/Advanced

on

Big Data & Data Science

under FutureSkills PRIME Scheme





FutureSkills Prime, India's Technology Skilling Hub, is a joint initiative by NASSCOM & MeitY, Govt of India to enable digital skilling at scale. It aims to make India the Digital Talent Nation by democratizing learning. With NASSCOM Certifications endorsing their technology skills, learners can open doorways to digital career opportunities.

Build the Skills to Rise with the Opportunity

Acquire interdisciplinary skills that combine technical expertise, IT skills and knowledge of digital technologies to pioneer transformation. Develop expertise for in-demand roles like data scientist, business intelligence analyst, full stack developer, information security analyst, machine learning engineer, etc.



FutureSkills PRIME – ten technologies

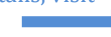
- | | |
|---------------------------|------------------------------|
| ✓ Artificial Intelligence | ✓ Cybersecurity |
| ✓ Virtual Reality | ✓ Internet of Things |
| ✓ Big Data Analytics | ✓ Web & Mobile Development |
| ✓ Blockchain | ✓ Robotic Process Automation |
| ✓ Cloud Computing | ✓ 3D Printing |

Training Programme GoT - Basic/Advanced conducted since 2024

- ❖ NIELIT Ropar, Chandigarh, Shimla, Kurukshetra
- ❖ National Informatics Centre
- ❖ Bureau of Investigation (BOI), Punjab Police
- ❖ Punjab Police (State Cyber Crime)
- ❖ Punjab Police
- ❖ Indian Army
- ❖ Higher education department J&K
- ❖ Jammu and Kashmir Board of School Education (JKBOSE)
- ❖ District Institute of Education and Training (DIET), Jammu
- ❖ Department of Technical Education and Industrial Training, Government of Punjab
- ❖ State Council of Educational Research and Training (SCERT), Punjab
- ❖ Department of School Education, Punjab
- ❖ Department of Higher Education, Punjab
- ❖ Department of Higher Education, Haryana
- ❖ School Education Department Government of Andhra Pradesh
- ❖ Roads and Buildings (R&B) Department, Visakhapatnam (Andhra Pradesh)
- ❖ District Treasury & Accounts Office, Visakhapatnam (Andhra Pradesh)
- ❖ Prohibition and Excise Department Government of Andhra Pradesh



For more details, visit
our website



**28 million
new tech jobs
will be created in India
by 2025.**



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Ministry of Electronics and Information Technology
Government of India

Training Programme for Government Officials GoT - Basic/Advanced

on

Big Data & Data Science

under FutureSkills PRIME Scheme



Executive Director

Deepak Wasan

Executive Director

01881-257002

Chief Investigator

Anita Budhiraja

Additional Director

01881-257015,
9815988717

a.budhiraja@nielit.gov.in

Coordinator

Dr. Sarwan Singh

Joint Director

9815621657

sarwan@nielit.gov.in

Speakers:

- Anita Budhiraja
- Dr. Sarwan Singh
- Lovnish Verma
- Ravi Kant

NIELIT Chandigarh in association with CDAC is organizing a free of cost training programme on **Big Data & Data Science (BDDS)** for Government officials under FutureSkills PRIME Scheme.

About Training Programme

Government of India has sanctioned a project FutureSkills PRIME (Programme for Re-skilling/Up-skilling of IT Manpower for Employability), which will be implemented as a new Central Sector Scheme under the "Champion Services Sector Scheme (CSSS)". This project will be executed jointly by NASSCOM, NIELIT, and CDAC across PAN India as per the directions issued by the Ministry of Electronics and Information Technology (MeitY), Government of India. The project includes training programmes in ten emerging technologies, with **Big Data and Data Science (BDDS)** being one of the key areas of focus.

Objective of Training Programme

The objective of the training programme is to ensure continued relevance of Government officials in the rapidly advancing fields of **Big Data and Data Science (BDDS)**. This training will provide an in-depth understanding of the fundamentals of data analytics, machine learning, and big data tools. Participants will acquire knowledge on handling large datasets, performing data analysis using Python, and implementing data-driven decision-making for various applications in governance and public sector domains. The course aims to empower officials with the necessary skills to navigate and leverage the evolving technological ecosystem.

Target Audience : Employees working in Central/State Governments, PSUs, and Autonomous organizations.

- ◊ **Basic Training** for employees having no prior experience in IT/ITeS and related areas
- ◊ **Advanced Training** for employees having prior experience in IT/ITeS and related areas

Advanced Training

Basic Training

- Introduction to Hadoop, Big Data, HDFS, YARN, MapReduce, Apache Hive, Data Integration, ETL Tools
 - Spark, DataFrames, Spark SQL, basic data transformation and analysis using Spark.
 - Introduction to NoSQL: MongoDB and CRUD Operations
 - Python Basics for Data Science: Libraries (Pandas, NumPy, Scikit-learn), data cleaning, basic data analysis, and visualization (Matplotlib, Seaborn)
 - Machine Learning Algorithms, Introduction to Deep Learning & Neural Network and Capstone Project
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- Data integration and ETL Tools: Apache Scoop, Flume, Spark and Web Scraping
 - NoSql, Types of NoSQL Databases, MongoDB (CRUD operations, Aggregation)
 - Introduction to Python and Python Libraries for Machine Learning (Scikit Learn, Tensorflow, Keras etc), Machine Learning Algorithms (Linear & Logistic Regression, Decision Tree, KMeans, Association rule, etc.), Introduction to Neural Network, Gradient Descent, Activation Functions, Deep Learning Algorithms (ANN, CNN, RNN), Open AI, Case study

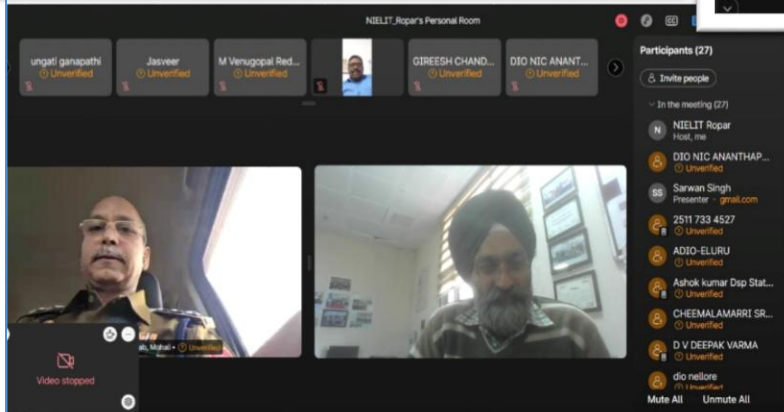
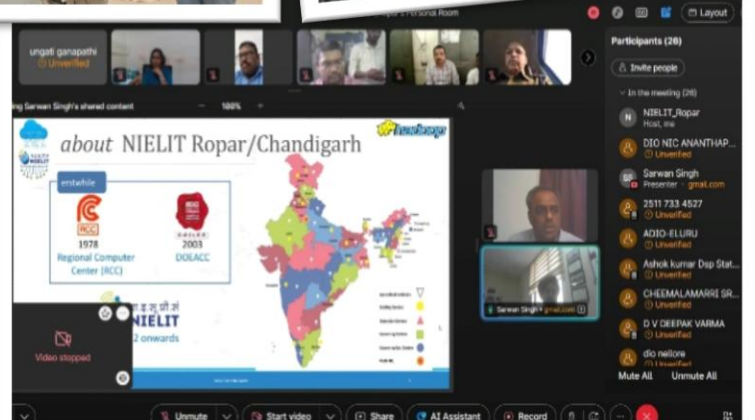
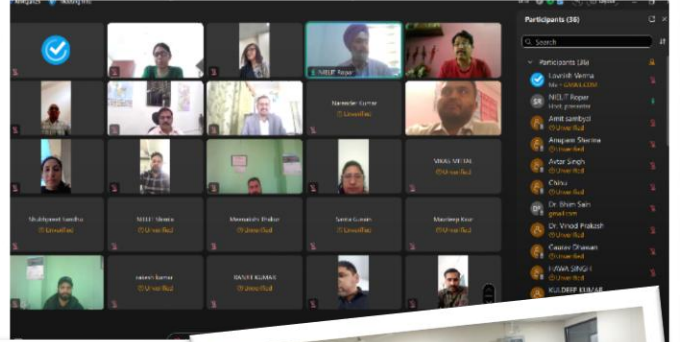


Lead Centre : Centre for Development of Advanced Computing (CDAC), Noida

Co-Lead Centre : NIELIT Chandigarh

Ropar Campus: Bada Phull, Birla Farms, (near IIT Ropar) Ropar
Chandigarh: Facility at IETE Building, Sector 30B, Chandigarh

Officials from National Informatics Centre (NIC) and Punjab Police - Bureau of Investigation (BOI)



Officials from Indian Army and Punjab Police - Bureau of Investigation (BOI)



Officials from Indian Cyber Crime Coordination Centre(I4C) - Punjab Police



National Institute of Electronics and Information Technology (NIELIT) Ropar
Essential of Digital Forensics for Investigators
5 Days Training for Cyber Police Officials from January 05, 2026 to January 09, 2026



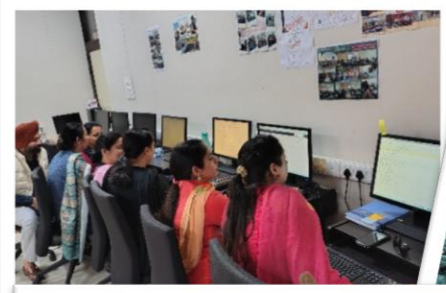
National Institute of Electronics and Information Technology (NIELIT) Ropar

Use of IT for Effective Policing

Training for Punjab Police Officials from 30 September, 2024 to 18 October, 2024



Officials from Department of Technical Education and Industrial Training, Government of Punjab



Government Officials Training (GOT)-Basic Sample Certificate and ScoreCard



SCORE CARD
(GoT-Basic)

Center Name : NIELIT Chandigarh
Course Name : Big Data & Data Science
Candidate Name : Narender Kumar
Certificate Number : FSP/GOTB/NIELITCHD/BDDS/CDAC/NOI/G01/2503/74
Course Code : FSP/NIELITCHD/BDDS/CDAC/NOI/G01/GOTB/04

SR. No.	Module Name	Max. Marks	Marks Obtained		Overall (A+B)
			Practical (A)	Theoretical (B)	
1.	Big Data & Hadoop				
2.	Working with Spark				
	Data Science Capstone Project	100		58	93
	Maximum Marks	100	Total Marks Obtained		93

Overall Performance*: Excellent
Date of Issue: 27th Mar, 2025

Anita Budhiraja
Chief Investigator
Anita Budhiraja
Scientist E
NIELIT Chandigarh

*As per the letter grade tabulated on the back side

FutureSkills PRIME - A MeitY & NASSCOM Digital Skilling Initiative

Government Officials Training (GOT)-Advanced Sample Certificate and ScoreCard



SCORE CARD
(GoT-Advanced)

Center Name : NIELIT Chandigarh
Course Name : Big Data & Data Science
Candidate Name : Anjani Garg
Certificate Number : FSP/GOTA/NIELITCHD/BDDS/CDAC/NOI/G02/2501/67
Course Code : FSP/NIELITCHD/BDDS/CDAC/NOI/G02/GOTA/02

SR. No.	Module Name	Max. Marks	Marks Obtained		Overall (A+B)
			Practical (A)	Theoretical (B)	
1.	Big Data & Hadoop				
2.	Working with Spark				
3.	NoSQL	100	34		91
4.	Data Science				
5.	Capstone Project				
	Maximum Marks	100	Total Marks Obtained		91

Overall Performance*: Excellent
Date of Issue: 20th Jan, 2025

Anita Budhiraja
Chief Investigator
Anita Budhiraja
Scientist E
NIELIT Chandigarh

*As per the letter grade tabulated on the back side

FutureSkills PRIME - A MeitY & NASSCOM Digital Skilling Initiative

**NATIONAL INSTITUTE OF ELECTRONICS & INFORMATION
TECHNOLOGY (NIELIT)**

Ministry of Electronics and Information Technology (MeitY),
Government of India



**BIG DATA & DATA
SCIENCE**



Marketing Budget & Channel Optimization	Customer Attrition & Loyalty Rating	Sentiment Analysis	Customer Segmentation
Recommendation Engines	Lead Targeting & Scoring	Pricing Strategy	Real-time Analytics

