



DURATION
6 Months

IT, AI & SOFTWARE DEVELOPMENT

COURSE & CAREER GUIDE · 2026

Professional Diploma in Python with **Data Science**

Course Details & Career Growth Guide

Python, statistics, machine learning, deep learning, NLP and SQL — the complete data science toolkit.

480 Training Hours

11 Modules

5 Hands-On Projects

Career Roles & Salary Ladder

Placement Support

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Programme Highlights

480 Hours

6 Months of structured,
practical training

5 Projects

Hands-on work you can
show employers

Certified

TÜV SÜD + IPCS Global

Placement

100% placement
assistance & career-
readiness

IPCS Global — Since 2008

IPCS Global began in 2008 as a specialised industrial automation training and services provider and has grown into one of India's leading technical and digital skills institutes, with 50+ branches across India and the GCC. Our Coimbatore centre in Peelamedu combines classroom teaching with hands-on labs, and every learner is coached in communication, aptitude and interview readiness alongside technical skills.

18+

YEARS

15,000+

PROFESSIONALS TRAINED

50+

BRANCHES

100%

PLACEMENT ASSISTANCE

About the IT, AI & Software Development Stream

From AI and data science to full stack development and QA automation, our IT programmes are built around real projects and portfolios — so you graduate able to show employers what you can build, not just what you studied.



ISO 9001:2015 Certified

Audited, consistent training quality.



TÜV SÜD Cooperation Partner

Partner of the German testing & certification body.



NSDC Approved Partner

Approved training partner under Skill India.



Inside the IPCS Global Coimbatore training centre.

Why IT, AI & Software Development, **Why Now**

The demand behind this programme — and the industries that hire our graduates.

- 1 Software runs every business**
Banks, hospitals, retailers and startups all need web applications, data pipelines and quality assurance — creating steady demand for skilled developers and analysts.
- 2 AI and data are the new core**
Companies are investing heavily in AI, analytics and automation. Candidates who can build with data and AI stand out immediately.
- 3 Skills beat degrees**
IT hiring increasingly tests what you can build. A strong project portfolio and GitHub profile can open doors regardless of your academic background.

Where You Can Work

- 1 IT services & consulting**
- 2 Product companies & SaaS**
- 3 Startups**
- 4 Banking, finance & insurance (BFSI)**
- 5 Healthcare & e-commerce**
- 6 Global capability centres (GCCs)**

Three Ways to Build Your Career

Full-Time Job

Join a company with placement support behind you — stability and structured growth.

Job + Freelance

Hold a job while taking side projects to build income and a broader portfolio.

Remote & Global

IT skills are the most globally portable: remote roles, freelance projects and overseas opportunities (GCC, Europe, US, Singapore) are all realistic with experience and a strong portfolio.

CAREER PROGRAMME

Professional Diploma in Python with Data Science

Python, statistics, machine learning, deep learning, NLP and SQL – the complete data science toolkit.

6 Months

480 Hours

11 Modules

5 Projects

Classroom / Online / Hybrid

Part A · Course Details

Program Overview

A 6-month diploma that turns you into a working data scientist. You learn Python, statistics, data wrangling and visualisation, then spend 120 hours on machine learning before moving into deep learning, NLP and SQL, finishing with a 60-hour capstone.

DURATION

6 Months

TRAINING HOURS

480 Hours

MODULES

11 Structured Modules

MODE

Classroom / Online / Hybrid

BATCHES

Weekday · Weekend · Fast-track

CERTIFICATION

TÜV SÜD + IPCS Global

Who Should Join

- ✓ Engineering, science, maths & commerce graduates
- ✓ Analysts moving into data science
- ✓ Software professionals
- ✓ Final-year students

Eligibility: Any degree with basic maths comfort (final-year students welcome).

What You'll Be Able To Do

- ✓ Clean, transform and explore real datasets
- ✓ Apply statistics to business questions
- ✓ Build and tune ML models
- ✓ Use deep learning and NLP
- ✓ Query databases with SQL
- ✓ Present insights to stakeholders

The Full Syllabus

11 modules, 480 hours, delivered in three phases that each build on the last.

01 · FOUNDATION

Modules 1–5 · 168 Hours

Python, statistics, data wrangling and visualisation.

02 · MODELLING

Modules 6–8 · 205 Hours

Machine learning, deep learning and NLP.

03 · PROFESSIONAL

Modules 9–11 · 107 Hours

SQL, project management and capstone.

01	Foundations of Data Science	3 Hrs
02	Programming for Data Science – Python	60 Hrs
03	Statistics & Probability for Data Science	20 Hrs
04	Data Wrangling & Preprocessing	45 Hrs
05	Data Visualization	40 Hrs
06	Machine Learning	120 Hrs
07	Deep Learning	45 Hrs
08	Natural Language Processing (NLP)	40 Hrs
09	SQL for Data Science	30 Hrs
10	Data Science Project Management	17 Hrs
11	Capstone Project	60 Hrs

Total Training Duration

480 Hours

Module-by-Module Topics

MODULE 01**3 Hrs****Foundations of Data Science**

- Data science lifecycle & roles

MODULE 02**60 Hrs****Programming for Data Science – Python**

- Python syntax, data types & operators
- Control flow, functions & modules
- Lists, tuples, dictionaries & sets
- OOP: classes, inheritance, polymorphism
- File handling & exceptions
- NumPy & Pandas

MODULE 03**20 Hrs****Statistics & Probability for Data Science**

- Descriptive statistics
- Probability distributions
- Hypothesis testing
- Correlation & regression

MODULE 04**45 Hrs****Data Wrangling & Preprocessing**

- Missing values & outliers
- Merging & reshaping data
- Feature engineering
- Scaling & encoding

MODULE 05**40 Hrs****Data Visualization**

- Matplotlib & Seaborn
- Storytelling with data
- Dashboards & KPIs
- Plotly interactive charts

MODULE 06**120 Hrs****Machine Learning**

- Supervised learning: regression & classification
- Unsupervised learning: clustering & PCA
- Decision trees, random forests & boosting
- Model evaluation & cross-validation
- Feature engineering & pipelines (scikit-learn)
- Time-series forecasting
- Model deployment basics

MODULE 07**45 Hrs****Deep Learning**

- Neural network fundamentals
- TensorFlow / Keras & PyTorch
- CNNs for images
- RNNs, LSTMs & sequence models

MODULE 08**40 Hrs****Natural Language Processing (NLP)**

- Text preprocessing & embeddings
- Sentiment analysis & classification
- Transformers & BERT
- Large language models & prompting

MODULE 09**30 Hrs****SQL for Data Science**

- Relational databases & normalisation
- SELECT, JOINS & aggregations
- Subqueries, CTEs & window functions
- Indexes & query optimisation

MODULE 10**17 Hrs****Data Science Project Management**

- CRISP-DM
- Agile for data teams
- Communicating results

MODULE 11

60 Hrs

Capstone Project

- Real dataset
- End-to-end pipeline
- Presentation

Professional Diploma in Python with Data Science · Part A

Tools, Projects & Assessment

Tools & Technologies You'll Use

Python

Jupyter

NumPy

Pandas

Matplotlib

Seaborn

Plotly

scikit-learn

TensorFlow / Keras

NLTK / spaCy

MySQL

Git

Projects You'll Build

1 Exploratory analysis of sales data

2 Loan default prediction

3 Sales forecasting

4 Review sentiment classifier

5 Capstone data science project

How You'll Be Assessed

1

Module Assessments

Practical and theory checks at the end of each module.

2

Project Reviews

Trainer review of your mini projects and final project.

3

Certification

Issued on meeting assessment and attendance criteria.

Certification: TÜV SÜD certification + IPCS Global course certificate + Internship Certification.

Where Professional Diploma in Python with Data Science Can Take You

Job roles, a realistic growth ladder with salary ranges, and the skills to keep growing.

Roles You'll Be Ready For

1

Data Scientist

Builds predictive models for business decisions.

2

Data Analyst

Analyses data and builds reports.

3

Machine Learning Engineer

Productionises ML models.

4

Business Intelligence Analyst

Builds dashboards and KPIs.

5

NLP Analyst

Analyses text data at scale.

6

Research / Analytics Associate

Supports data-driven research.

Your Growth Ladder

STAGE

01

0-2 YRS

Junior Data Scientist / Analyst

Clean data, analyse and build models.

₹3.5 – 6 LPA

STAGE

02

2-5 YRS

Data Scientist

Own models and insights for business teams.

₹6 – 12 LPA

STAGE

03

5-8 YRS

Senior Data Scientist / Lead

Lead data science projects.

₹12 – 24 LPA

STAGE

04

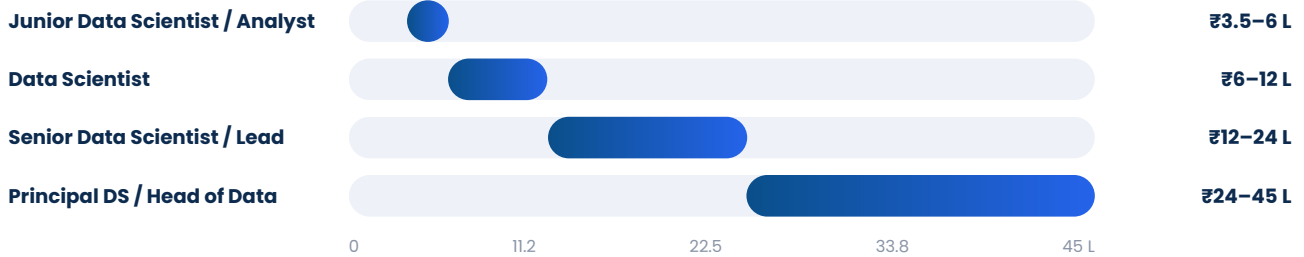
8+ YRS

Principal DS / Head of Data

Set data strategy and lead teams.

₹24 – 45 LPA

■ Annual Salary Range (CTC) — ₹ Lakh per annum



Indicative ranges for India in 2026. Lower end: Tier-2 cities such as Coimbatore and smaller firms; upper end: metros and larger companies. Guidance only, not a salary guarantee.

■ Skills to Add Next

- ✓ Cloud data platforms
- ✓ Spark & big data
- ✓ MLOps
- ✓ Advanced statistics & experimentation
- ✓ GenAI & LLM applications

■ Certifications to Target

- ✓ TÜV SÜD certification
- ✓ Microsoft Azure Data Scientist
- ✓ Google Professional Data Engineer
- ✓ AWS ML certifications

■ Upgrade Path at IPCS Global

1 Professional Diploma in AI

2 Cloud data certifications

■ Your First 12 Months After the Course

1

Month 0–1 · Get Visible

Polish your resume and portfolio; apply through the IPCS placement cell's drives.

2

Month 1–3 · First Role

Join as a Junior Data Scientist / Analyst.

3

Month 3–6 · Get Certified

Earn one certification from the list above.

4

Month 6–12 · Specialise

Pick a specialisation and own a project, system or channel.

How We Train & Certify

Technical skill gets you noticed — presentation, confidence and communication get you hired. Career-readiness runs alongside the syllabus, not after it.

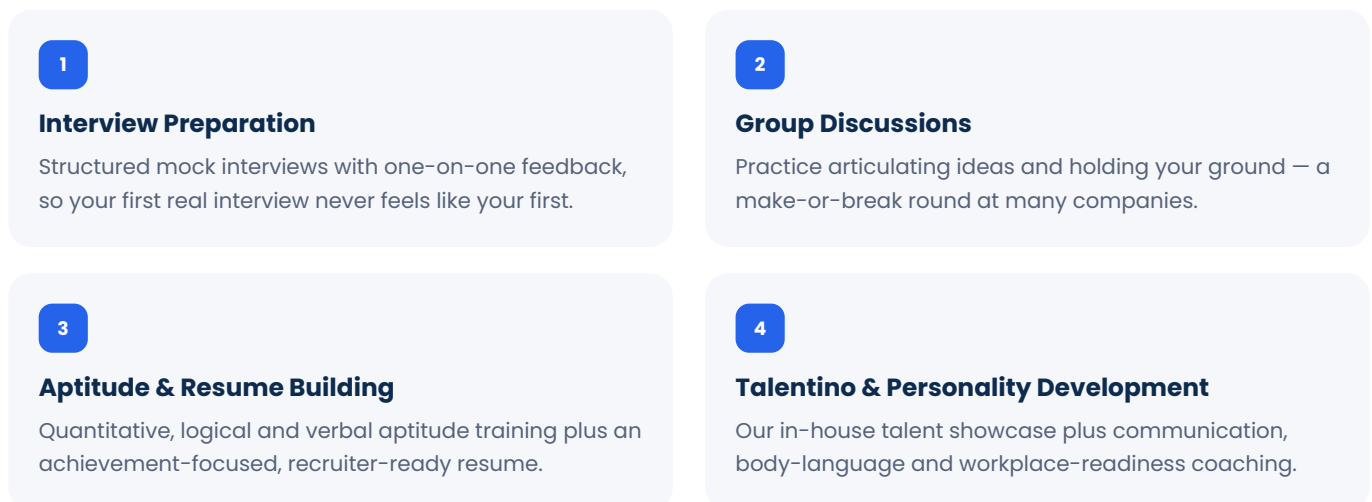
Our Learning Method



Your Certifications

- TÜV SÜD Certification**
 IPCS Global is a cooperation partner of TÜV SÜD, the German testing and certification body. Eligible learners receive a TÜV SÜD certificate that adds independent, international credibility to their skills.
- IPCS Global Course Certificate**
 IPCS Global is an ISO 9001:2015 certified institute and an NSDC approved training partner. Your certificate is issued on successful completion of assessments and projects.
- Internship Certification**
 Documents your real-world projects and GitHub portfolio work — verifiable experience for your resume.

Career-Readiness Track



How IPCS Global Gets You Hired

Every learner goes through a structured career-readiness track alongside the course, supported by our dedicated placement cell.

1

Dedicated Placement Cell

Interview drives, industry referrals and follow-up until you are placed – not just until the course ends.

2

Resume & Portfolio

One-on-one sessions to build a recruiter-ready resume and a project portfolio that proves your skills.

3

Aptitude & GD Training

Quantitative, logical and verbal aptitude plus group discussion practice.

4

Mock Interviews

Simulated technical and HR panels so the first real interview never feels like the first.

Recent IPCS Coimbatore Placements



A selection of recent placements across IPCS Global Coimbatore programmes.

Global opportunity: IT skills are the most globally portable: remote roles, freelance projects and overseas opportunities (GCC, Europe, US, Singapore) are all realistic with experience and a strong portfolio.

Why IPCS Global



18+ Years of Training Excellence

A track record since 2008, refined across 15,000+ professionals trained.



ISO 9001:2015 Certified

Audited, consistent training quality — every batch, every time.



Recognised Partnerships

TÜV SÜD cooperation partner and NSDC approved training partner.



Dedicated Placement Cell

Industry tie-ups, interview drives and follow-up until you are placed.



Real Labs, Real Projects

Industry-grade equipment and live projects — proof of work, not just a certificate.



50+ Branches, One Standard

Across India and the GCC, with weekday, weekend and fast-track batches.

Meet Our Coimbatore Team



Trainers, mentors, counsellors and placement coordinators at IPCS Global Coimbatore — working with every learner from the first class to final placement.

Frequently Asked Questions

Quick answers to the questions learners and parents ask us most. For anything else, call or visit the Coimbatore branch.

Q. Do I need prior experience to join?

Most programmes start from the fundamentals. Each programme lists its eligibility — our counsellors will confirm the right starting point for your background.

Q. Are classes held online or in the classroom?

Classroom / Online / Hybrid. Talk to our counsellors about the best option for your programme.

Q. What batch timings are available?

We run weekday, weekend and fast-track batches, so students and working professionals can both find a schedule that fits.

Q. Is placement guaranteed?

We provide 100% placement assistance — resume building, aptitude and GD training, mock interviews and interview drives through our dedicated placement cell. Final selection depends on each learner's performance, attendance and interview results.

Q. What certificate will I receive?

TÜV SÜD certification + IPCS Global course certificate + Internship Certification.

Q. Can I attend a class before enrolling?

Yes. Book a free demo session to meet the trainers, see the labs and experience a live class before you decide.

Q. What are the course fees?

Fees depend on the programme and batch type. Please contact the Coimbatore branch for the current fee structure and any available offers.

Q. Can working professionals join?

Yes. Weekend and fast-track batches are designed for people who are working or studying alongside the course.

LET'S START THE CONVERSATION

Your Career in IT, AI & Software Development Starts Here

Book a free demo class, meet the trainers and see the labs — our counsellors will help you pick the right programme and batch.

Visit Us

Address #12, 2nd Floor, Swathi Towers,
Sowripalayam –
Masakalipalayam Road, Opp.
GRG Matriculation School,
Periyar Nagar, Peelamedu,
Coimbatore, Tamil Nadu –
641004

Get In Touch

Phone +91 80860 96664
Email bmcbe@ipcsglobal.com
Web www.ipcsglobal.com
Batches Weekday · Weekend · Fast-track

Book Your Free Demo Session Today

Walk in, call or write to us — meet the trainers, see the labs, and get counselling on the right course and batch before you enrol.

How to Enrol

1

Contact Us

Call, WhatsApp or walk in to our Peelamedu centre.

2

Free Demo

Attend a live class and see the labs.

3

Choose a Batch

Weekday, weekend or fast-track.

4

Enrol & Start

Simple, guided enrolment.