



SAARTHI - सारथी

करियर मार्गदर्शन पोर्टल · Career Guidance Portal

"सही मार्गदर्शन, उज्ज्वल भविष्य।"

करियर शीट · CAREER SHEET

वित्तीय इंजीनियर

A Financial Engineer (quant) uses maths, statistics and programming to solve financial problems — measuring risk, pricing products and building investment strategies. They bridge engineering and finance. It is an analytical,...



Scan for everything on this career

Salary, exams, colleges, the routes in and the steps after — all on the portal.

career.gsssjethantri.in/#/career/eng-4620

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सुशील कुमार शर्मा

प्रधानाचार्य, रा.उ.मा.वि. जेठन्तरी · मास्टर ट्रेनर
Principal, GSSS Jethantri · Master Trainer



श्री चेनाराम चौधरी

प्रधानाचार्य, डाइट बाड़मेर
Principal, DIET Barmer



श्रीमती संघमित्रा

वरिष्ठ व्याख्याता, डाइट बाड़मेर (सहयोग)
Sr. Lecturer, DIET Barmer (Support)



भरत चौधरी

अभिकल्पना व विकास · व्याख्याता (इतिहास)
Designed & developed · Lecturer (History)

विशेष धन्यवाद · SPECIAL THANKS



सुरेन्द्र सिंह राठौड़

व्याख्याता (इतिहास) · रा.उ.मा.वि. कानाना



सुरेश कुमार सैन

व्याख्याता (भूगोल) · रा.उ.मा.वि. रामसीन मूंगड़ा



वनिता कुमारी

व्याख्याता (इतिहास) · रा.उ.मा.वि. रामसीन मूंगड़ा



कमलेश चौधरी

व्याख्याता (राजनीति विज्ञान) · रा.उ.मा.वि. टापरा

करियर मार्गदर्शन कार्यशाला, डाइट बाड़मेर (14-17 जुलाई 2026) में विकसित व लोकार्पित
Developed & unveiled at the Career Guidance Workshop, DIET Barmer (14-17 July 2026)

यह एक स्वतंत्र परियोजना है, जो सरकार की आधिकारिक करियर-मार्गदर्शन सामग्री पर आधारित है। · An independent project based on the Government's official career-guidance content.

1 About this career

A Financial Engineer (quant) uses maths, statistics and programming to solve financial problems — measuring risk, pricing products and building investment strategies. They bridge engineering and finance. It is an analytical, high-paying career.

2 At a glance

Minimum qualification	Bachelor + Master in Engg/Maths/Finance
Work mode	Office, computer-based, 45+ hrs/week
Demand	Rising — fintech & algo-trading
Top earning	₹5,00,000+/month

3 What you need

INTERESTS

- Interest in maths and numbers
- Financial markets and investing
- Analysing charts and data

ABILITIES

- Strong mathematical, analytical thinking
- Logical and detail-focused
- Precision in record-keeping

KEY SKILLS

- Quantitative and statistical modelling
- Financial risk and derivatives
- Understanding of markets and investing
- Programming (Python, R, C++)
- Data analysis and machine learning
- Backtesting and algo strategies

4 How to get there

- 1 Pass 10+2 with science/maths.
- 2 Do a bachelor's in engineering, mathematics or finance.
- 3 Take a master's or certificate in Financial Engineering/Quantitative Finance.
- 4 Build a portfolio through programming and modelling projects.
- 5 Start as an analyst/junior quant.
- 6 With experience and CFA/FRM, move to senior quant and portfolio roles.

MAIN EXAMS

- JEE Main / REAP (engineering bachelor's)
- GATE / CAT (master's and management)
- CFA / FRM (finance certifications)

5 Where to study

GOVERNMENT INSTITUTES

- आई.आई.टी. खड़गपुर (वित्तीय इंजीनियरिंग) — Kharagpur, W. Bengal
- राष्ट्रीय प्रतिभूति बाज़ार संस्थान (NISM) — Navi Mumbai, Maharashtra
- जादवपुर विश्वविद्यालय — Kolkata, W. Bengal
- मालवीय राष्ट्रीय प्रौद्योगिकी संस्थान (MNIT) — Jaipur, Rajasthan

PRIVATE INSTITUTES

- इंडियन इंस्टीट्यूट ऑफ क्वांटिटेटिव फाइनेंस (IIQF) — Mumbai, Maharashtra
- अमृता विश्व विद्यापीठम — Coimbatore, Tamil Nadu
- जी.डी. गोयनका यूनिवर्सिटी — Gurugram, Haryana

ONLINE

- SWAYAM/NPTEL (क्वांटिटेटिव फाइनेंस) — Online (<https://swayam.gov.in>)
- Coursera (Financial Engineering) — Online (<https://www.coursera.org>)

FEES

Master's/certificate courses cost about ₹25,000-3,00,000; IITs and top programmes can be pricier. Fees vary by institute.

SCHOLARSHIPS

- राष्ट्रीय छात्रवृत्ति पोर्टल / National Scholarship Portal (<https://scholarships.gov.in>)
- Buddy4Study (<https://www.buddy4study.com>)
- विद्यालक्ष्मी शिक्षा ऋण / Vidya Lakshmi Education Loan (<https://www.vidyalakshmi.co.in>)

6 What the work is like

WHERE YOU WORK

Investment and commercial banks, hedge funds, fintech companies, insurance firms, corporate treasuries and financial regulators.

WORK CULTURE

Financial engineers work mostly in offices, doing long hours of research and data analysis on computers; 45+ hours a week is not unusual. Opportunities exist for persons with disabilities.

WHO HIRES

- | | |
|---|---|
| • Investment and commercial banks | • Hedge funds and asset-management firms |
| • Fintech and algo-trading firms | • Insurance and risk-management companies |
| • Financial regulators and corporate treasuries | • Consulting and analytics firms |

DEMAND (2026)

Growth in fintech, algorithmic trading, risk management and AI-driven investing is raising demand for skilled financial engineers/quants in 2026.

7 Career growth

- 1 Analyst / Junior Quant
- 2 Quant / Financial Analyst
- 3 Senior Quant / Manager
- 4 Portfolio Manager / Senior Consultant
- 5 Head of Quantitative Research

EARNINGS

Starting	₹40,000-70,000/माह
Mid level	₹1,00,000-2,00,000/माह
Senior level	₹5,00,000+/माह

Source: Joooble and industry data, 2026; much higher in hedge funds, abroad and senior quant roles.

8 The good parts · The challenges

The good parts

- Very good pay and demand
- A blend of maths, coding and finance
- Global and fintech opportunities

The challenges

- Long hours and high pressure
- Heavy maths and constant learning
- Market risk and uncertainty

9 Real-life journeys

Devina Mehra

Founder & Chairperson, First Global; data-driven (AI-ML) fund manager

A middle-class girl from Lucknow, Devina Mehra won gold medals in Maths and Statistics at Lucknow University and IIM Ahmedabad, worked at Citibank, and in 1992 founded First Global; her team's AI-ML model scans about 25,000 companies worldwide.

Business Standard · https://www.business-standard.com/book/devina-mehra-challenges-investment-myths-with-data-driven-insights-125021901412_1.html

Sourabh Sisodiya

Quant Trader & Co-Founder, Quantify Capital (Mumbai)

An ordinary IT engineering graduate, Sourabh Sisodiya started as a small retail trader relying on gut feel and lost money, then taught himself data-driven systematic trading and co-founded Quantify Capital, a quant firm running backtested strategies.

QuantInsti · <https://blog.quantinsti.com/trading-establishing-quantitative-research-firm-sourabhs-incredible-story/>

Sandeep Tyagi**Founder & Chairman, Estee Advisors (a pioneer quant/algo investment firm)**

An IIT Delhi engineer with an MBA from Columbia, Sandeep Tyagi built the analytics firm Inductis and then founded Estee Advisors, one of India's earliest quantitative and algorithmic investment firms, where maths and data — not tips — drive decisions.

PMS Bazaar · <https://pmsbazaar.com/FundManager/Estee-Advisors-Pvt-Ltd/Sandeep-Tyagi>

10 If this route does not work out

One exam or one attempt does not close the door. The same subjects also open these routes — entry is usually easier, and you can return to this field later.

- Mechanical Engineer
- Civil Engineer
- Electrical and Electronics Engineer

11 Sources & further reading

1. Rajasthan Career Guidance — <https://cg.rajasthan.gov.in/careerguidance/hi/career/%e0%a4%b5%e0%a4%bf%e0%a4%a4%e0%a5%8d%e0%a4%a4%e0%a5%80%e0%a4%af-%e0%a4%87%e0%a4%82%e0%a4%9c%e0%a5%80%e0%a4%a8%e0%a4%bf%e0%a4%af%e0%a4%b0-financial-engineer/>
2. National Institute of Securities Markets (NISM) — <https://www.nism.ac.in>
3. National Career Service (NCS) — <https://www.ncs.gov.in>
4. National Scholarship Portal — <https://scholarships.gov.in>

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Interest and aptitude tests, government jobs, skill courses and a CV builder — free, no login, and it works offline.

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