

# Job Notification Form, IIT Delhi

## Company Overview

**Name:** Taiwan Semiconductor Manufacturing Company

**Website:** <https://www.tsmc.com/>

**Company Type:** Core (Technical)

**Description:** Established in 1987 and headquartered in Hsinchu Science Park, Taiwan, TSMC pioneered the pure-play foundry business model with an exclusive focus on manufacturing customers' products. By choosing not to design, manufacture or market any semiconductor products under its own name, the Company ensures that it never competes with its customers. And so, the key to TSMC's success has always been to focus on its customers' success. TSMC's foundry business model has enabled the rise of the global fabless industry, and since its inception TSMC has been the world's leading semiconductor foundry. The Company manufactured 11,617 different products using 281 distinct technologies for 510 different customers in 2020.

TSMC-made semiconductors serve a global customer base that is large and diverse and includes a wide range of applications. These products are used in a variety of end markets including mobile devices, high performance computing, automotive electronics and the Internet of Things (IoT). Such strong diversification helps to smooth fluctuations in demand, which in turn allows TSMC to maintain higher levels of capacity utilization and profitability, and generate healthy returns for future investment.

The annual capacity of the manufacturing facilities managed by TSMC and its subsidiaries exceeded 12 million 12-inch equivalent wafers in 2020. These facilities include four 12-inch wafer GIGAFAB® fabs, four 8-inch wafer fabs, and one 6-inch wafer fab – all in Taiwan – as well as one 12-inch wafer fab at a wholly owned subsidiary, TSMC Nanjing Company Limited, and two 8-inch wafer fabs at wholly owned subsidiaries, WaferTech in the United States and TSMC China Company Limited.

In May 2020, TSMC announced its intention to build and operate an advanced semiconductor fab in the United States, in order to better support customers and partners there as well as to attract global talents. This facility, to be built in Arizona, will utilize TSMC's 5-nanometer technology for semiconductor wafer fabrication and will have a capacity of 20,000 semiconductor wafers per month. Construction is planned to start in 2021 with production targeted for 2024.

TSMC provides customer support, account management and engineering services through offices in North America, Europe, Japan, China, and South Korea. At the end of 2020, the Company and its subsidiaries employed more than 56,000 people worldwide.

The Company is listed on the Taiwan Stock Exchange (TWSE) under ticker number 2330, and its American Depositary Shares (ADSs) are traded on the New York Stock Exchange (NYSE) under the symbol TSM.

## Job Details

**Designation:** Design/process co-optimization and R&D Engineer in advanced nodes

**Type:** Core (Technical)

**Place of Posting:** Hsinchu City, Taiwan

**Job Details:**

1. R&D in 5nm/4nm/3nm/HPC design and process co-optimization
2. EDA enablement/certification, design, timing and power methodology development
3. Proprietary and CAD utilities development
4. Design flow collaboration and co-optimization with 1-tier customers in the world

Requirements:

1. Familiar with CMOS devices, CAD algorithms, EDA tool, APR and timing flow, physical verification, logic designs and/or VLSI chip implementation flow.
2. Innovation and ability to make it happen
3. Timing/power methodology and library characterization
4. IR-drop analysis, power calculation, DC and AC Electro-migration check and fixing

**International:** Yes

**Joining By:** 31 August 2022

## Salary Details

**CTC:** 71,011 USD Per Annum

**Gross:** 59,176 USD Per Annum

**CTC Breakup:**

1. Including 12-month base pay, 2-month year-end bonus, profit sharing, 2-month relocation bonus, and 4-to-6-month sign on bonus. (\*Design incentive bonus is included in "profit sharing".)
2. Base Salary, year-end bonus are fixed and recurring; Relocation and sign on bonus are one shot paid after onboard.

\*Above salary is for Master students, PhD students will get higher pay.

**Perks / Bonus:** Mentioned as CTC breakup.

**Bond:** Yes

## Selection Process

**Resume Shortlist:** Yes

**Written Test:** No

**Online Test:** No

**Group Discussion:** No

**Medical Test:** No

**Personal Interview:** Yes

**No. of** 2

**Rounds:**

**No. of 3  
Offers:**

**Minimum 8  
CGPA:**

## Eligibility

**Recruiting  
PHDs:** Yes

**Eligible  
Departments:** M.Tech in Applied Optics, M.Tech in Chemical Engineering, M.Tech in Communications Engineering, M.Tech in Computer Science & Engineering, M.Tech in Computer Technology, M.Tech in Control & Automation, M.Tech in Engineering Analysis & Design, M.Tech in Industrial Engineering, M.Tech in Instrument Technology, M.Tech in Integrated Electronics & Circuits, M.Tech in Materials Engineering, M.Tech in Mechanical Design, M.Tech in Molecular Engineering: Chemical Synthesis & Analysis, M.Tech in Optoelectronics & Optical Communication, M.Tech in Polymer Science & Technology, M.Tech in Polymer Science and Technology, M.Tech in Power Electronics, Electrical Machines & Drives, M.Tech in Power Systems, M.Tech in Production Engineering, M.Tech in Radio Frequency Design & Technology, M.Tech in Solid State Materials, M.Tech in Telecommunication Technology & Management, M.Tech in Thermal Engineering, M.Tech in VLSI Design Tools & Technology, M.Sc in Chemistry, M.Sc in Mathematics, M.Sc in Physics, B.Tech in Engineering Physics and M.Tech in Computer Science & Engineering, B.Tech in Chemical Engineering and M.Tech in Computer Science & Engineering, B.Tech in Production & Industrial Engineering and M.Tech in Computer Science & Engineering, B.Tech in Mechanical Engineering and M.Tech in Computer Science & Engineering, M.S.(R) in Computer Science & Engineering, M.S.(R) in Electrical Engineering, M.S.(R) in VLSI Design Tools and Technology, M.S.(R) in Materials Science and Engineering, B.Tech in Mechanical Engineering and M.Tech in Computer Science & Engineering, B.Tech in Production & Industrial Engineering and M.Tech in Production Engineering, M.S.(R) in Mechanical Engineering, Post Graduate Diploma for Visionary Leadership in Manufacturing, M.S.(R) in Chemical Engineering, M.S.(R) in Telecommunication Technology and Management, M.S.(R) in Applied Mechanics, M.S.(R) in Sensors, Instrumentation and Cyber-physical System Engineering