

## **BHARATELECTRONICSLIMITED**

In 1954, in a newly independent India, the need was utmost to develop indigenous industry. The dream of a self-reliant India gave birth to many Public Sector Undertakings. Bharat Electronics Limited (BEL) was one such dream, which has come along way since then with the far-sighted vision of its pioneers, the dedication and hardwork of its employees, support and faith of its customers and the Government of India. The Government's clarion call for "Make in India" or "Atmanirbhar Bharat" resonates with what BEL has been successfully doing for over 6 decades.

Bharat Electronics Limited India's premier Professional Electronics Company is a Navratna Public Sector Undertaking under the Ministry of Defence, Govt of India and is a multi-Product, multi-Technology and multi-Unit company with Nine units located all over the country.

Starting from a single Unit in Bengaluru, BEL has established its presence across the country by setting up eight other Units- in Ghaziabad, Pune, Machilipatnam, Panchkula, Kotdwara, Navi Mumbai, Chennai and Hyderabad. BEL has been laying great emphasis on Research and Development right from the early years and hence established Product Development and Innovation Center (PD & IC) at Bengaluru, Central Research Laboratories (CRL) at Bengaluru & Ghaziabad. BEL also has Marketing /Regional /Liaison Offices, Regional Product Support Centers/Water Front Support Centers across the country and Overseas Offices.

BEL has capabilities in designing, developing, manufacturing and supplying a wide range of strategic Electronic products/systems including those involving emerging technologies to meet the evolving needs of global customers in diverse fields.

BEL is a key player in the Indian Defence segment and has a growing presence in the civilian and export segments. BEL holds strong reputation led by excellence in Technology and Quality and ability to develop innovative solutions that deliver superior performance. From a meager turnover of ₹ 2lakhs in 1956-57, BEL has grown manifold to record a turnover of ₹23,024 Crores for the FY 2024-25

BEL produces a wide range of state-of-the-art equipment in fields such as Defence Communication, Radars, Missile Systems, Naval Systems, Electronic Warfare & Avionics, C4I Systems, ElectroOptics, Tank Electronics & Gun/Weapon System Upgrades and Electronic Fuses etc. BEL has also diversified into various areas like Home Land Security Solutions, Anti Drone Systems, Unmanned Systems, Artificial Intelligence, Software Solutions, Smart Cities, E-governance Solutions, Space Electronics, Energy Storage Products, Solar, Network & Cyber Security, Railways & Metro Solutions, Airport Solutions, Electronic Voting Machines, Telecom Products, Passive Night Vision Devices, Medical Electronics, Composites, etc.

To retain the technology leadership of the company in Defence and other chosen fields of professional electronics through In-house Research and new Innovations, it has two Central Research Laboratories one located at Bangalore and the other at Ghaziabad. The objective of CRL is to make Bharat Electronics a fountainhead of electronics technology. The mandate for CRL is to Cater for all R&D requirements of BEL, to work on cutting edge and futuristic technologies and to disseminate technological information throughout the company. BEL's quest for Business excellence has been recognized with a number of National Level R&D awards for Design & Innovation in which CRL Scientists have made a major contribution.

BEL is not only a successful business story but also an organization which cares for people and society. Even before the term "Corporate Social Responsibility" gained currency; BEL has undertaken innumerable CSR activities and continues to do them with a lot of passion and commitment. BEL has set up educational institutions, including a special school for the mentally challenged. It has also set up hospitals, fine arts clubs and sports facilities. These and other welfare initiatives ensure a good quality of life for employees and their dependents. Some of these facilities also serve the local community. BEL is currently concentrating on promoting education, sanitation, healthcare, rural development, employment and enhancing vocational skills, while ensuring environmental sustainability.

Awards galore have come BEL's way, recognizing its emphasis on excellence. Recent accolades include the prestigious "The Economic Times -Iconic Brand of India-2022" and the Quantic Technology Excellence Award 2022.

BEL has also been conferred Business Standard Annual Award for Corporate Excellence STAR PSU of the year 2021, CII CFO of the Year Award in the PSU Category and Green tech Corporate Governance Professional of the Year Award, Rajbhasha Kirti Award for the second time and Rajbhasha Gaurav Puraskar, IEI Industry Excellence Award, IETE Corporate Award for Performance in Development of Software, Golden Star Outstanding R&D Leadership Award, Governance Now Awards for Nation Building, HR Excellence and Digital Security, Green tech Energy Conservation Award 2021, "Manufacturing Company of the Year Award" and Woman Manufacturer of the Year Award" by Manufacturing Today, PSU Excellence Award 2022 from Media Federation of India, Swachhata Pakhwada Award 2020, Communicators of the Year Award from Media Federation of India, ICCPSE Excellence Award for Corporate Social Responsibility", Indian Chamber of Commerce PSE Excellence Award-2023, Award for Excellence in Research and Innovation, Environment & Sustainability and Geo Strategic Reach -2023, SCOPE Excellence Award for Digitalisation-2024, National Export Excellence Award-2024.

(For details please refer our website ([www.bel-india.in](http://www.bel-india.in))).

## **Conditions for Appointment**

Bharat Electronics Limited proposes to recruit M.E/M.Tech. (*Preceded by B.E/B.Tech.*) Students who are presently studying 3<sup>rd</sup> Semester (2024-26 batch, 2 years course) in the field of E&C/CS/Aerospace Engineering/ ME/M.Tech in Mechatronics/Control Engineering and M.E./M.Tech in Quantum Technology/Photonics/Photonic Science Engineering for the Post of Member Research Staff (MRS) for its Central Research Laboratory, Bengaluru and Central Research Laboratory (CRL) – Ghaziabad Uttar Pradesh.

<b>Sl. No</b>	<b>Description</b>	<b>Upper Age Limit as on 01.12.2025 (in years)</b>	<b>Minimum Aggregate % of Marks for M.Tech (up to 2nd Sem)</b>
1	Member Research Staff(MRS)	i) 27 Years for General & EWS Candidates  ii) Relaxation in upper age limit as prescribed by the Government guidelines: • Upper limit + 3 years for OBC (NCL) Candidates • Upper limit + 5 years for SC / ST Candidates • For PwBD Candidates : 10 years over & above the age limit applicable for the respective category	i) Gen/EWS/OBC(NCL) candidates with an aggregate of $\geq$ 65% or equivalent CGPA  ii) SC/ST/PwBD candidates with an aggregate of $\geq 55\%$ or equivalent CGPA

Candidates who have not cleared the backlogs in subjects from the previous semesters / year are not eligible to appear for Written Test/Interview. As on the date of the Written Test/Interview, they should have passed in all subjects of previous semesters / year. Candidates from Integrated courses are not eligible for selections.

Candidates who are presently studying in 3<sup>rd</sup> Semester of the ME/M.Tech course (2024-26 batch, 2 years course) and will pass out from the College / Institute in the academic year 2025-26 are eligible to be assessed for selections.

BEL has introduced a Paid Internship Program for candidates recruited through Campus Placement. The paid internship program has been introduced for candidates selected through Campus selection from IIT/NITs by CRLs. The selected candidates are required to undergo internship program either at CRL-Bangalore or CRL-Ghaziabad for certain period which will be informed to the selected candidates in due course of time.

The following structure is to be followed for the paid internship program:

- a) For M.E/M.Tech Engineering: A stipend of Rupees 40,000 per month will be offered for a period up to 6 months.
- b) The internship may be extended based on project needs/ academic requirements/ intern's performance.

#### **Pre-placement Offers:**

Pre-Placement offers will be issued to candidates who are provisionally selected during campus recruitment.

#### **Assessment Process:**

An assessment will be conducted by the Reporting/Reviewing Officer at the end of the internship period to evaluate the intern's performance, contribution and suitability for future employment.

#### **Provisional Offers:**

Based on the assessment and the successful completion of the academic program, candidates will be issued provisional offers of appointment at BEL.

#### **Service Contract / Contract Bond:**

Service Contract (Bond) to serve the company for a period of 2 years from the date of joining or pay Rs. 2 Lakhs in lieu of breach of contract (applicable also during the training period) and as stipulated in the service contract executed at the time of joining BEL.(Bond will be operative from the date of Joining)

#### **Leave Entitlement:**

During the Internship Period, the candidates will be eligible for the following:

- Weekly Saturday offs
- Two(2) Casual-cum-Sick leave per month with a facility to carry forward the leaves to next month up to 6 months(12 leaves max). Leave can be availed with the approval of HR Head of the respective office. The unutilized leaves shall expire at the end of internship tenure.
- Paid holidays declared by the respective Offices.

## **Job Description (CSE):**

Member Research Staff is an entry level position and the incumbents are required to do technology development in the areas such as:

- Computer Science & Engineering
- Computer Graphics / Computer Vision / Image Processing
- Cyber Security/Networks Security/ Information Security
- Artificial Intelligence/ Data Analytics/ Machine Learning / ML-Driven Research
- Real-time & Embedded Systems/ Robotics
- Database / Data Systems / Data-heavy applications
- Computer Networks / Distributed Systems / Networking & Systems
- IoT, Cloud, Mobile/ Pervasive Computing
- Operating System
- Neural Network & Language Processing
- Operating Systems
- Web Technologies

## **Job Description (ECE):**

- Embedded Computing System
- Sensor Signal Processing
- Communication
- Radio and Wireless Communication
- Next Generation Networks
- Radar Signal Processing
- Radar Data Processing
- Microwave & Radio Frequency Circuits,
- Antenna Design
- Machine Intelligence & Robotics
- Electronic Warfare
- Artificial Intelligence
- Next Generation Customized Cellular Network Devices for Defence (5G , 6G etc)
- On the Fly reconfigurable waveforms for Communications Radios and Satcom Systems
- Microwave & RF Transceivers
- Cryptography for Networking and Radios
- Smart Jammers
- Advanced Time Reference Systems and Navigations Receivers

## **Job Description (Aerospace Engg.):**

Member Research Staff is an entry level position and the incumbents are required to do technology development in the areas such as,

- ☐ Aero space vehicle design
- ☐ Stability & Control
- ☐ CFD Analysis
- ☐ Aircraft Structures
- ☐ Navigation and control
- ☐ Aerodynamics
- ☐ Characterization of Ammunition

## **Job Description (Photonics/Photonics Science Engineering & Quantum Technology)**

Member Research Staff is an entry level position and the incumbents are required to do technology development in the areas such as,

- RF and Photonics
- Integrated Circuits and Systems
- Integrated Electronics and Circuits
- Optoelectronics and Optical Communication
- Applied Optics
- Free space optics
- Semiconductor Technology (Interdisciplinary programme in photonic integrated circuits, lasers & non-linear photonics and opto-electronics and photovoltaics specialization)
- Quantum Computation and Simulations,
- Quantum Communications and Cryptography,
- Quantum Sensing and Metrology,
- Quantum Materials and Devices
- Quantum Algorithms and Quantum Approximate Optimization Algorithm
- Qbit Technology & Qbit Control Measurement
- FPGA board design
- Electronic System Engineering ( Photonics specialization)

- Photonics Science & Engineering
- Terahertz communication and sensing
- Microwave Photonic

## **Job Description (Mechatronics Engineering)**

- System Design & Development
- Programming & Software Development
- Testing & Validation
- Troubleshooting & Problem Solving
- Project Management

## **CTC CALCULATION FOR E-II GRADE**

Grade	Monthly								Annual CTC (in Rs.)
	Scale of Pay	Basic (in Rs.)	DA @ 51.8%	HRA @ 30% of Basic for 'X' classified cities	Superannuation Benefits (PF 12% + Gratuity 4.81% + Leave Encashment 8.33%) (Basic+DA)	Perks @ 35% of Basic	Annual Pension @ 7% of Basic+DA	Monthly CTC (in Rs.)	
E-II (ME/M.Tech)	40000-3%- 140000	* <b>42440</b>	21984	12732	16195	14854	4510	112715	<b>1353000</b>

\* (ME/M.Tech Candidates are eligible for 2 additional increments in their scale of pay)

**The total CTC for E-II grade indicated above is approximate figures which is excluding of the total earning opportunity of Performance Related Pay (PRP) and DA raises in the year. The CTC is subject to change based on company's policies.**

For the purpose of Calculating HRA, the following is considered:

Classification of cities	HRA (%) of Basic
X'	30%

- I. Percentage of HRA payout will depend on the place of posting. The classification along with % DA payout is indicated in the table above.
- II. Performance Related Pay (PRP) which also forms CTC is not included in the above calculations. PRP is the earning opportunity which is paid based on various parameters like MoU rating, Individual Performance, Unit Performance etc.
- III. Dearness Allowance (DA) changes are based on Consumer Price Index (CPI) which is updated every quarter. In the above calculations, the percentage indicated is the prevailing DA.
- IV. Perks which amount to 35% of Basic (yearly) is disbursed in the month of April, July, October of every year based on the option selected by the Executive. Perks include **PDA – Professional Development Allowance, LTA – Leave Travel Assistance, Furnishing allowance**. However, the amount shown in the table above is only for calculation purpose.
- V. Superannuation benefits & Annual Pension are not paid on monthly basis. Only for the purpose of calculating CTC, they are included under monthly components.