J.C. BOSE UNIVERSITY
OF SCIENCE AND TECHNOLOGY,
YMCA, FARIDABAD (HARYANA)

Ph.D.
Information Brochure

2024-25

J.C. BOSE UNIVERSITY
OF SCIENCE AND TECHNOLOGY,
YMCA, FARIDABAD (HARYANA)
Accredited 'A+' Grade by NAAC, State Government University

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भारत 2023 INDIA
वसुधैव कुटुम्बकम्
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आज़ादी का
अमृत महोत्सव

J.C. Bose University of Science and Technology, YMCA, Faridabad formerly known as YMCA University of Science and Technology, Faridabad was established in 2009 vide Haryana Government Gazette Notification No. 29 of 2009, dated 16.9.2009 (Haryana Act No. 21 of 2009). Earlier, known as YMCA Institute of Engineering, Faridabad, was founded in the year 1969 as a Joint Venture of Government of Haryana and National Council of YMCAs of India with active assistance from overseas agencies of West Germany to produce highly practical oriented personnel in specialized fields of engineering to meet specific technical manpower requirement of industries.

The University is well known for its track record of employment of the pass out students since its inception. The University has been recognized at various levels by the agencies including UGC, AICTE, NAAC, NBA and NIRF. The University offers B.Tech and M.Tech programs in core and specialised engineering disciplines. Also, Science, Management and Humanities programs are being offered by it, besides Ph.D in numerous disciplines.

The University is situated right on the National Highway No.2 known as Mathura Road, 32 kms. from the Nation's Capital, New Delhi. The University has its own Campus on a plot area of 20 acres. It is located in the growing and sprawling Faridabad - Ballabgarh Industrial Complex of Haryana. The University is well connected with rail and road transport from Delhi / New Delhi.
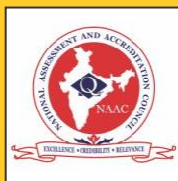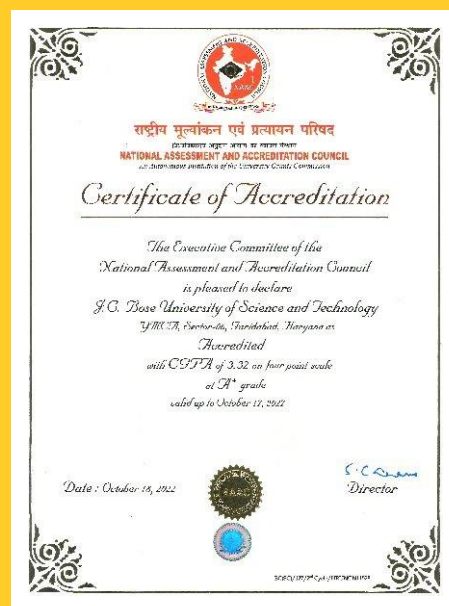
AWARDS AND RECOGNITION

NAAC ACCREDITATION

J.C. Bose University has been re-accredited by the National Assessment and Accreditation Council (NAAC) with 'A+' Grade and a CGPA of 3.32 in the Second Cycle of Accreditation. NAAC, which is the highest body of evaluation for the Universities and Colleges in the country, assessed the University on seven point-scale criteria on quality parameters. The result of the assessment was declared in the 127th Meeting of the Standing Committee of NAAC held on October 18, 2022, and shall remain valid for the next five years.

NBA ACCREDITATION

Total Seven Undergraduate and Postgraduate Programs are accredited by National Board of Accreditation (NBA). The programs accredited with NBA are B.Tech. in Computer Engineering, Mechanical Engineering, Electronics Engineering, Electrical Engineering, Electronics and Communication Engineering, Information Technology and MBA.

NIRF RANKING

The University has maintained the tradition of its excellence in Technical Education. The University has consistently made its place in the top 200 Engineering Institutes in the Country in NIRF Rankings. The University aims to be among the top 100 institutions in the country. Apart from this, the University strives to make its presence in the University, Management, and Research categories of the Ranking.

ARIIA RANKING

The University has made its presence in the Atal Ranking of Institutions on Innovation Achievements (ARIIA) Rankings and it has been placed under 'Band-Performer' in the category of Govt. & Govt. Aided University and Deemed to be University (Technical)' in ARIIA Rankings 2021.

ARIIA Rankings is an initiative of the Ministry of Education (MoE), Government of India implemented through AICTE and MoE's Innovation Cell to systematically rank all major higher educational institutions and universities in India on indicators related to promotion and support of 'Innovation and Entrepreneurship Development' amongst students and faculties.

NPTEL RANKING

The University is consecutively rated in the top 100 institutions on SWAYAM-NPTEL Local Chapter among more than 4000 institutes across the Country.

IIC RATING

The University has been rated '4.5 Star' by Innovation Cell, Ministry of Education, Govt. of India to promote Innovation and Start-up for the year 2019-20.

BEST UPCOMING UNIVERSITY AWARD

The University is conferred with "Best Upcoming University" award by Associated Chamber of Commerce and Industry of India in February, 2014 under National Education Excellence Awards 2014.

AICTE'S LILAVATI AWARDS 2021-22

A five members' team of Prof. Lakhwinder Singh (Mechanical Engineering Department), Dr. Sapna Gambhir (Computer Engineering Department), Dr. Parul Tomar (Computer Engineering Department), Dr. Rashmi Chawla (Electronics Engineering Department), Ms. Khushi Gupta (Computer Engineering Department) has been awarded 1st Runner up position in AICTE's Lilavati Awards 2021-22 under Sub-Theme 'Women Innovators' (Rural/Urban).

AICTE'S BRAND AMBASSADOR OF CHANGE

All India Council for Technical Education (AICTE) has selected J.C. Bose University of Science and Technology, YMCA, Faridabad for AICTE's Brand Ambassador of Change under its Leadership in Teaching Excellence (LITE) Program for Academic Year 2021-22. Two faculty members namely Dr. Payal Gulati and Dr. Amita Arora, both Assistant Professors in Computer Engineering department have also been selected for Leadership Training under the Program.

EDUFUTURE EXCELLENCE AWARD-2022

The University has received the Edufuture Excellence Award-2022 for Excellence in Faculty and Management. The Award is given to acknowledge and applaud the efforts of educational leaders, institutions, teachers, and students who went beyond the mile and demonstrated excellence in the field of education.

TEQIP-III PROJECT

The University has successfully implemented the third phase of World Bank assisted Technical Education Quality Improvement Programme (TEQIP-III) which was granted to the University in the year 2017.

RUSA SCHEME

The Ministry of Education, Government of India has selected the University in year 2018 to extend support under the RUSA 2.0, the second phase of Rashtriya Uchchatar Shiksha Abhiyan. The Scheme aims at providing strategic funding to eligible State Higher Educational Institutions.

CAREERS 360 RATING

The Careers 360 Magazine has ranked the University among top Engineering Institutions in Haryana in last many consecutive years. The University has been awarded with 'AAAA+' rating by Magazine.

ISO CERTIFICATION

The University has been awarded ISO Certification of Recognition for its Quality Management System that complies with the requirements of the standard ISO 9001:2015 and for its Environment Management System that complies to the requirements of the standard ISO 14001:2015.

RED CROSS STATE LEVEL AWARD

Indian Red Cross Society, Haryana State Branch awarded the University with 'Youth Red Cross Shield' and Coordinator – YRC with 'Youth Red Cross Award' for Voluntary Blood Donation (Educational Institution), for the year 2019-20 and the Vice Chancellor with Souvenir, for the year 2020-21.

AICTE – MARGDARSHAN SCHEME

The All India Council for Technical Education (AICTE) has granted J.C. Bose University of Science and Technology, YMCA, Faridabad the status of 'Mentor Institute' to support nearby Technical Institutes in achieving quality parameters like NBA Accreditation. The University will serve as the 'Mentor' (Margdarshan Institute) to guide and disseminate knowledge to 8 Technical Institutes under the Margdarshan Scheme of AICTE.

AICTE VISVESVARAYA BEST TEACHER AWARD 2021

Dr. Neelam Duhan, Associate Professor of the Department of Computer Engineering, J.C. Bose University of Science and Technology, YMCA, Faridabad, has been awarded the AICTE Visvesvaraya Best Teacher Award 2021.

APPRECIATION AWARD

Appreciation award by DC Faridabad - in the field of life saving programme for Blood Donation and COVID-19 Pandemic, between the years 2015 and 2021.

MEMBERSHIP

The University is a member of Association of Indian Universities (AIU).

JC Bose University of Science and Technology, YMCA Faridabad (Haryana)

(Established by Haryana State Legislative Act No.21 of 2009,
Approved by AICTE & Recognized by U.G.C. U/s. 2(f) and 12(B) of U.G.C. Act 1956)

SCHEDULE FOR Ph.D. admission in Session 2024-2025
*KEY DATES

1. Availability of prospectus and online application on University website: 01/01/2025 (Wednesday)

2. Last date for submission of online application forms duly filled in for admission at the University website : 27/01/2025 (Monday)

3. Date of Interview & Counselling : 29/01/2025 to 31/01/2025

4. Display of list of selected candidates for Ph.D. admission: 04.02.2025 (Tuesday)

5. Course fee submission by selected candidate: 05/02/2025 to 07/02/2025

6. Date of Commencement of the Ph.D. course work classes: 10/02/2025 (Monday)

University reserves the right to change these dates in view of uncertainties or any other unavoidable circumstances.

NOTE:

Entrance Exam will not be conducted for admission to Ph.D. program. Only those candidates need to apply who are eligible as per UGC guidelines.

Candidates are required to make the payment of Rs.1050/- (Rs.525/- for SC / ST Category) via online payment gateway for application form/registration fee through Debit/Credit Card, Net Banking or by E-Challan.

The candidate without depositing the fee will not be considered for admission process.

GENERAL INFORMATION

1. This prospectus/advertising is for regular Ph.D. program for 2024-25. The application form for admission would be available online on university website: www.jcboseust.ac.in.

2. The duly completed online application form along with all required enclosures should be submitted by the last date as specified. No application will be entertained thereafter.

3. A candidate who furnishes particulars which are found to be false or suppresses material information, will not be considered for admission and if he/ she is admitted on such information, his/ her admission shall be cancelled as per University rules and all fees deposited by him/ her will stand forfeited.

4. Before accepting the admission, the candidate must also ensure that he/ she fulfills the minimum eligibility conditions. Fee once paid will not be refunded.

5. All the admitted candidates will be governed by the Academic Regulation and/ or Ordinance as laid down by the University and amended from time to time.

6. In the case of any inconsistencies in the rules or any clarification thereof, the matter shall be referred to the competent authority for interpretation whose decision shall be final.

7. Detailed ordinance is available at university website.

8. Candidate without depositing the application fee shall not be considered for admission process.

Introduction

Ph.D. program was started in the University in the year 2010. Till now more than 200 students of different batches are enrolled for Ph.D. programs in the discipline of Mechanical Engineering, Electrical Engineering, Electronics Engineering, Computer Engineering, Management, Physics, Environmental Sciences, Chemistry, English and Mathematics.

Fee Structure

At the time of admission:

Candidates are required to submit a DD of Rs. 25,000/- at the time of admission in the favour of "Registrar, J.C. Bose UST, Faridabad" payable at Faridabad.

Consolidated list of regular Ph.D. seats for the Session 2024-2025 offered at university campus

Sr. No.	Name of the Department	No. of Ph.D. seats	Area(s) in which Ph.D. is offered
1	Computer Engineering	20	Soft Computing, Mobile and wireless communications, Data Communication Networks, Cloud Computing, Big Data Platform Analytics, IoT, Wireless Network, Security Outing, Computer Vision, Wireless security, authentication, Information Retrieval, Machine Learning, Networks,
2	Computer Applications	10	Software Testing, Machine Learning, Search engine optimization, Computer Vision and Artificial intelligence Natural language processing, Soft Computing.
3	Civil Engineering	04	Geotechnical Engineering, Green Building Materials, Sustainable Technology
4	Electrical Engineering	10	Power Systems, Renewable Energy, Green Technology, Electrical Machines, Power Quality, Control Systems, AI, Machine Learning, Power System Stability, FACTS Devices, Electrical Vehicle, Microgrid, Power Electronics, Machine Drives
5	Electronics Engineering	10	IoT Application, Embedded Systems, Semiconductor Devices and VLSI, DSP, Wireless Communication, PV Cell

6	Mechanical Engineering	15	Thermal Engineering, Energy Conservation, Industrial Engg., Quality Management, Advance Manufacturing, Cutting Tool Design, Design, Materials, Fluid, Energy, Welding Materials and Manufacturing, Material Technology, Production Management, Manufacturing Quality, SCM, Data Science, Fabrication & Characterization of Metal Matrix Composites, Manufacturing, Industry 4.0, CAD/CAM, Operation Research, Lean, JIT, Supply Chain, Production, Non-Conventional Machining, Production Technology, Computer Integrated Manufacturing, 3D Printing, FEA, Engineering Materials and their Characterization, Mechanical Metallurgy, IC Engine
7	Management	04	Financial Management, Human Resource, Marketing, Organizational behaviour, Behavioural Science
8	Communication and Media Technology	02	Journalism & Communication, Social media, New Media etc.
9	Mathematics	02	Operations Research, Quantum Optics and Quantum Information Processing, Continuum Mechanics: Wave Propagation, Approximation Theory
10	Physics	15	Nanotechnology, Smart materials/Polymeric materials, Energy harvesting devices, Thin film Technology, Swift heavy ion irradiation, Template based synthesis, Piezoelectricity, Solar Fabrication Technology, Vacuum systems design and assembling, Fabrication of solid state electronic devices, Conducting glass fabrication technology, Magnetic nanomaterials
11	Chemistry	10	Material Chemistry, Synthetic and Medicinal chemistry, Physical and Theoretical Chemistry, Physical and analytical chemistry, Inorganic Chemistry, Physical Chemistry
12	Environmental Sciences	02	Environmental Pollution Monitoring and Abatement, Water and Waste water Treatment, Heavy metal removal by Nano-adsorbents, Solid Waste Management, Bioenergy; Microbial Fuel Cells (MFC); Landfill Leachate Treatment, Environmental Nanotechnology; Soil Pollution, Remediation; Nano/Bio-sensors; Biowaste Management Technology
13	Interdisciplinary	05	------
14	Literature & Languages	01	English
15	Life Sciences	03	Biotechnology, Microbiology
	Total seats	**113**	

Note:

(i)   Number of Ph.D. seats may increase or decrease in any of the above department.

(ii)   The broad areas of specialization mentioned against each of the department above is merely for the information of the candidates that research supervisor(s) are available in these areas. However, admission to Pre-Ph.D. course will be strictly as perprocedure laid down in Ordinance of Doctor of Philosophy.

(iii)   The university may not fill available seats in case candidate's specialization/choice does not match with the requirement or suitability.

(iv)   Merely being eligible for the interview and facing it does not entitle the candidate for Ph.D. admission. Based on the performance in the interview a candidate may be reported as 'Not Found Suitable' and hence may not get selected.

(v)   Please refer to Annexure 1 for admission guidelines in Interdisciplinary Research.

Ph.D Seat Matrix - (Session 2024-25)

Sr. No.	Department/ Discipline	A Intake	B RoHC O	B RoHC F	C HOGC O	C HOGC F	C HOGC ESM O	C HOGC ESM F	C HOGC FF O	C HOGC FF F	D SC O	D SC F	D SC ESM O	D SC ESM F	D SC FF O	D SC FF F	E SC-D O	E SC-D F	E SC-D ESM O	E SC-D ESM F	E SC-D FF O	E SC-D FF F	F BC-A O	F BC-A F	F BC-A ESM O	F BC-A ESM F	F BC-A FF O	F BC-A FF F	G BC-B O	G BC-B F	G BC-B ESM O	G BC-B ESM F	G BC-B FF O	G BC-B FF F	H PH O	H PH F	Total O	Total F	Grand Total	HoGC-EWS
1	Mechanical Engg	14	1	1	3	2			1		1						1						1						1						1		10	4	14	1
2	Computer Engg	18	2	1	5	1		1			1	1					1						2						1	1					1		13	5	18	2
3	Electrical Engg	9	1		3	1					1											1	1						1								7	2	9	1
4	Electronics Engg	9	1		3	1					1						1						1										1				7	2	9	1
5	Management Studies	4	1		1	1											1																				3	1	4	0
6	Mathematics	2			1						1																										2	0	2	0
7	Literature and Languages	1			1																																1	0	1	0
8	Physics	14	1	1	5	1					1						1						1	1					1						1		11	3	14	1
9	Chemistry	9	1		3	1										1	1						1						1								7	2	9	1
10	Environmental Sciences	2		1	1																																1	1	2	0
11	Civil Engineering	3	1			1																	1														2	1	3	1
12	Communication and Media Technology	2			1																					1											1	1	2	0
13	Computer Application	9	1		3	1					1						1						1									1					7	2	9	1
14	Interdisciplinary	4	1			1																	1						1								3	1	4	1
15	Life Sciences	3			1																					1			1								2	1	3	0
	Total	103	11	4	31	11	1	1	1	0	7	2	0	0	1	0	7	1	0	0	0	0	10	3	0	0	0	0	7	3	0	0	0	0	1	0	77	26	103	10

- **NOTE: 25% horizontal reservation in all categories in all courses shall be provided for Female candidates**

Rest of Haryana Category = ROHC
Haryana Open General Category = HOGC
Schedule Castes = SC
Deprived Schedule Castes = SD-D
Backward Classes (A) = BC-A
Backward Classes (B) = BC-B

Physically Handicapped = PH
Open = O
Female = F
Ex-Serviceman = ESM
Freedom Fighter = FF
Economically Weaker Sections= EWS

Eligibility

(i) A candidate for admission to the course of Ph.D. program shall have master's degree or a professional degree declared equivalent to the master's degree by the corresponding statutory regulatory body with at least 55% marks in aggregate or its equivalent grade B in the UGC 7 point scale (or an equivalent grade in a point scale where ever grading system is followed or an equivalent degree from a foreign educational institution accredited by an assessment and accreditation agency which is approved/recognized or authorized by an authority, established or incorporated under a law in its home country or any other statuary authority in that country for the purpose of assessing, accrediting or assuring quality and standards of educational institution. The equivalence of the degree will be decided by the Board of Studies (BOS) in the University.

(ii) A relaxation of 5% of marks, from 55% to 50%, or an equivalent relaxation of grade, may be allowed for those belonging to SC/ST/OBC(non-creamy layer)/Differently-Abled and for those who had obtained their Master's degree prior to 19th September, 1991. The eligibility marks of 55% (or an equivalent grade in a point scale wherever grading system is followed) Where CGPA is awarded and percentage of marks is not mentioned (percentage of marks = 9.5 x CGPA) and the relaxation of 5% to the categories mentioned above are permissible based only on the qualifying marks without including the grace mark procedures.

(iii) Candidates possessing a Degree considered equivalent to M.Phil. Degree of an Indian Institution, from a Foreign Educational Institution accredited by an Assessment and Accreditation Agency which is approved, recognized or authorized by an authority, established or incorporated under a law in its home country or any other statutory authority in that country for the purpose of assessing, accrediting or assuring quality and standards of educational institutions, shall be eligible for admission to Ph.D. programme.

(iv) The candidates who appeared in regular master's level examination in the current session may also appear in the admission process. But they must submit the proof of having passed the examination on the pre-designated date before admission to the Pre-Ph.D. course.

(v) The state reservation policy shall be followed in Ph.D. Admission.

(vi) A candidate provisionally registered for Ph.D. shall be required to attend classes for one semester for a Pre-Ph.D. course.

Notes:

1. The applicants who are eligible and have valid score in GATE/UGC/ NET/CSIR(JRF)/SLET/ passed regular M.Phil. Programme in the related discipline.

Rules for regular Ph.D. program

The regular Ph.D. will have following four categories of scholars admitted to program

(a) A research scholar getting scholarship from University.

(b) A research scholar receiving fellowship / scholarship from outside organizations such as CSIR, UGC, QIP, DST, AICTE etc.

(c) A research scholar receiving fellowship / scholarship under MoU between University and industry.

(d) Self-financed: A scholar who does not receive financial help like scholarship/assistant ship from university or from any other source during his/her Ph.D. program.

(i)   Research Scholarship from University

Four University Research Scholarships (URS) of Rs. 25000/- each will be awarded as per rules of the University.

(ii)   Other Scholarships

(a) One MOB research fellowship (MRF) of Rs.31,000/- + HRA will be awarded toengineering stream only as per rules of the University.

(b) IOCL Scholarship

(c) ADF Scholarship

For the details of the scholarships please refer the University Website.

(iii) Leave

Leave for a maximum of 15 days in a year in addition to general holidays may beallowed to a Research Scholar by the Chairperson of the Department on the recommendation of the Supervisor. The scholar will not be entitled to any vacations. No other leave of any kind with scholarship will be admissible to a Research Scholar.

The merit list for admission and allotment of scholarship shall be prepared by Department according to the following criteria (UGC notification No.F.4-1(UGC-NET Review Committee)/ 2024 (NET)/40648 dated March 27, 2024

a) 70% marks of NET/GATE/other valid and qualifying National Level Test

b) 30% marks based on performance in the interview/viva-voce to be conducted by the respective department.

The LIST OF SUCCESSFUL APPLICANTS will be displayed on university website and notice boards. The successful applicants will report to the **Chairperson of the respective teaching department on the scheduled date for interview/Admission**.

(Ph.D. ordinance to be followed for everything not mentioned here.)

J.C. BOSE UNIVERSITY OF SCIENCE AND TECHNOLOGY, YMCA, FARIDABAD (HARYANA)

A State Government University (Accredited 'A⁺' Grade by NAAC)

(Established by Haryana State Legislative Act No. 21 of 2009, Recognized by U.G.C. u/s 2 (f) and 12(B) of U.G.C. Act 1956)

NH- 2, SECTOR-6, MATHURA ROAD, FARIDABAD-121006, (HARYANA),INDIA

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