



JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY

(Approved by UGC u/s 2(f) of UGC Act 1956)

P.O. Wagnaghat, Teh. Kandaghat, Distt. Solan, Himachal Pradesh-173 234

ADMISSION PROCESS FOR PhD PROGRAMME

Academic Session: 2024-25

1. JUIT AT A GLANCE:

Jaypee University of Information Technology, Wagnaghat was established as the first State Private University of Himachal Pradesh vide Extraordinary Gazette Notification in May 2002.

JUIT offers PhD degree programmes in Biotechnology, Bioinformatics, Civil Engineering, Computer Science & Engineering, Electronics & Communication Engineering, Mathematics, Physics & Materials Science and Humanities & Social Science. JUIT Wagnaghat provides a learner-centric academic environment to its students. It aims to instil in students the capability to deploy appropriate technology paradigms for given tasks, explore new technologies and lead teams to solve complex problems.

The University is spread over 25 acres of lush green pollution free environment with a built-up area of 74372.56 sq.m. comprising the Academic Block (with lecture theatres, classrooms, tutorial rooms, laboratories, administrative and faculty offices and the library), Hostel residences for boys and girls, faculty residences, guest house, Annapoorna (Mess), auditorium, sports facilities, 5 Gyms, bank with ATM, dispensary, helipad, university bus, laundry and other associated services. At present, boys' and girls' hostels can accommodate upto 1800 students. The hostel for girls is separate. The campus is fully wifi, with 24x7 electric supply and power back up. NCC is available for volunteer students. The medium of instruction in JUIT is English.

2. OVERVIEW OF DEPARTMENTS:

a) **BIOTECHNOLOGY (BT) & BIOINFORMATICS (BI):** Current developments in biological sciences have created a niche for “Bioeconomy” through research and innovation in biological sciences complemented by physical, chemical, engineering and information technologies to create economic activity and public benefit. Department of Biotechnology & Bioinformatics is one of the leading departments of JUIT among private education institutions in the country with a mission of crafting of Biotechnology and Bioinformatics professionals with leadership quality in technology, creativity, innovation, and entrepreneurship. This mission is to achieve through best practical approaches in teaching and research. The department is known for its quality education in area of Biotechnology and Bioinformatics due to its strong R&D program, up-to-date educational curricula, modern laboratory infrastructure, highly qualified faculty, foreign students' exchange, IPR & patents, and placements of graduates in various leading companies in India and abroad. As on now 109 students have been awarded Ph.D. in the domains of Biotechnology and Biotechnology from the department. The department strives to harness human capital for sustainable competitive edge in the field of Biotechnology and Bioinformatics.

[For more information about Department click here](#)

b) CIVIL ENGINEERING (CE): The Department provides a vibrant educational environment to the students in the competitive field of Civil Engineering keeping in view the emerging infrastructural needs of the country as well as the emphasis on IT-enabled Civil Engineering profession. The Undergraduate curriculum of Civil Engineering (CE) and Civil Engineering with Computer Application (CEC) at JUIT Waknaghat have been developed to meet the latest requirements of the infrastructural development of our country which emphasizes the basic, advance and software orientated Structural Engineering, Construction Management, Environmental Engineering, Surveying, Geotechnical Engineering and Transportation/Highway Engineering. Additionally, the department offers Ph.D. (Civil Engineering) in areas of Geotechnical Engineering, Structural Engineering, Construction Management, Highway Engineering, Water Resource Engineering, Environmental Engineering. The Department carries out active research and development in the area of Rockfill material modelling, Constitutive modeling, FEM in Geotechnical Engineering, Soil plasticity, Slope stability problems (including seismic), Soil-nailing, Landfill design, Fluvial hydraulics, Scouring, Flow of water around hydraulic structures such as bridge piers and abutments, Concrete rheology, Development of HPC with Alcolfine, micro-silica, etc., Composite materials, Prestressed concrete, Dynamic analysis of structures subjected to extreme loading, and earthquakes, Seismic evaluation of existing buildings, Active and passive control of tall structures against earthquakes, Smart structures, Air pollution, Estimation of NO_x / CO concentrations, Solid-waste management, Pavement Materials, Design and Maintenance. The department has excellent research lab facilities accompanied with professional softwares like STAAD Pro, MATLAB, Auto-CAD, REVIT, MS-Project, Primavera, OpenSees, Geo5, ABAQUS, Plaxis 2D and 3D for research purposes and enhancing employability of PhD students in the field of Conventional Civil Engineering and the evolving software based Civil Engineering. The Department also has ample presence in consultancy projects in nearby areas due to its best-in-class laboratories. The department aims at providing state-of-the-art skills and knowledge in multi-disciplinary and multi-domain operations to the students preparing them as leaders and highly sought after professionals in the world of Civil Engineering and Computer oriented Civil Engineering.

[For more information about Department click here](#)

c) COMPUTER SCIENCE & ENGINEERING / INFORMATION TECHNOLOGY (CSE/IT): At the undergraduate level, the Department lays emphasis on theoretical and practical aspects of Object-Oriented Programming, Software Engineering, Computer Organization & Architecture, Database Management, Operating Systems, Theory of Computation, Compiler Design, Computer Graphics, Computer Networks and Microprocessors and Microcontrollers. The Department provides exposure to emerging technologies as well as futuristic technologies like Nanotechnology, Quantum Computing, Bioinformatics, Genetic Algorithms and Parallel Programming. The Department pursues active research groups in several research frontiers of Computer Science & Engineering like Ubiquitous Computing, Algorithms and Parallel Computing, Computational and Machine Intelligence, Computer Systems and Networks, Databases and Distributed Systems, Software Engineering and Information Systems and Systems and Network Security. Some of the active areas of research include Machine Translation, Image Processing, Machine Learning, Natural Language and Speech Processing, Big Data Analytics, Internet of Things, Pervasive Computing, Human Computer Interaction, Parallel, Distributed and Grid Computing Algorithms, Probabilistic Graphical Models, Deep Learning, Reinforcement Learning, Mobile Computing, Wireless Sensor Networks, Software Defined Networking, Service Oriented Architecture and Software Agents, Cryptography and Network Security and Cyber Laws

[For more information about Department click here](#)

d) ELECTRONICS & COMMUNICATION ENGINEERING (ECE): Electronics & Communication Engineering (ECE) is designed to induce in students the ability to bring technological excellence using Innovation. At the core of the stream lie Digital Signal and Image Processing, VLSI and Microelectronics, Data Communication Networks, Microwave and Antenna, Embedded Systems, Internet of Things and its applications. ECE is a multi-dimensional branch and ECE engineers are highly in demand in most of the Public sectors (PSU's) like Indian oil cop. Ltd., BHEL, BEL, GAIL, DRDO, ISRO, NTPC, HAL, BSNL, MTNL, Indian Railway etc. as well as in private companies such as ST Microelectronics, Samsung, IBM, Intel, Qualcomm, Cisco, Juniper, Nokia, British Telecom, Sony, National Instruments, Rockwell Automation and Texas instruments etc. B.Tech. in Electronics and Computer Science (ECS) is introduced with an increasing demand for engineers with good programming skills, proficiency in new industrial developments and use of the latest technologies such as Artificial Intelligence, Machine Learning, Data Science, Internet of Things, Cloud, Edge, Fog computing and Robotics. As the demand for programming-based courses is on an increase, major courses from Electronics & Communication Engineering (ECE), as well as Computer Science Engineering (CSE), are included. ECS graduates will be strong in both hardware and software knowledge. A plethora of job opportunities will be offered to ECS graduates by major companies of ECE and CSE such as Mitsubishi, Nvidia, LinkedIn, Oracle, Infosys, TCS, Wipro, Deloitte, Accenture, Microsoft, Adobe, Google, Cisco to name a few. B.Tech. in Electronics Engineering (VLSI Design & Technology) is initiated in alignment with the semiconductor policy of the Government of India under India Semiconductor Mission (ISM), Govt. of India. The Govt. is encouraging the semiconductor companies to set up foundries and plants in India and foresees a requirement of trained manpower in the semiconductor Technologies, VLSI Design and allied areas. Through this program we aim to train and equip our undergraduate students with theoretical and practical knowledge and experience to make them ready to be able to contribute to the semiconductor industry ecosystem here in India. Major VLSI companies in India are Intel India, NXP Semiconductors, Qualcomm India, Texas Instruments in India, Synopsys India, STMicroelectronics India, ARM India, Analog Devices India, Broadcom India. The course curriculum is aligned with and is guided by the model curriculum provided by the AICTE, while retaining the flexibility to update as per the changing industry requirements.

[For more information about Department click here](#)

e) MATHEMATICS (MATHS): Ph.D. in Mathematics in India is a testament to one's dedication, intellectual prowess, and commitment to advancing the frontiers of knowledge in this profound field. The Department of Mathematics, Jaypee University of Information Technology (JUIT) is a dedicated and research-oriented department where aspiring mathematicians can embark on this challenging and rewarding academic journey. The pursuit of a Ph.D. in Mathematics at JUIT offers a unique blend of tradition and innovation. India has a rich history in mathematics dating back to ancient times, with luminaries like Aryabhata and Ramanujan contributing significantly to the field. Today, JUIT upholds this legacy by fostering a nurturing environment for mathematical research. Doctoral candidates at JUIT benefit from a rigorous curriculum, state-of-the-art research facilities, and the mentorship of accomplished faculty members who are actively engaged in cutting-edge research. The program encourages independent thinking, problem-solving, and original contributions to the mathematical community. The

academic program leading to the degree involves fulfilling course credit requirements, residential requirements and a thesis giving a critical account of the research carried out in any of the following areas: Applied group theoretic techniques, Discrete symmetries, Mathematical modeling and simulation, non-linear partial differential equations, Linear Algebra, Numerical Methods, Operations Research, Differential Geometry, Multivariable Calculus, Wave propagation, Wavelets and differential equations, Wavelets in image processing, Algebraic Coding Theory, Sequence Design, Distributed Source Coding, Fuzzy Information Measures, Decision Making, Pattern Recognition.

[For more information about Department click here](#)

- f) PHYSICS & MATERIALS SCIENCE (PMS):** The Department of Physics and Materials Science (PMS), JUIT Waknaghat, offers a PhD program in experimental and theoretical physics, material sciences, and allied areas. Financial assistance of Rs 37000/- pm will be provided to students as per merit. The department has well-equipped research laboratories with state-of-the-art equipment. The PhD program at JUIT provides a strong background for developing a professional career in academics and industries. PhD program is supported by regularly organized seminars, expert talks, and the opportunity to interact with many experts from India/abroad bestowing a dynamic ambiance and an excellent learning environment. The Dept of PMS has got a strong alumna connection and our alumni have established their names in their profession. The details of the research of the department, research scholars, and its alumni can be accessed on the web link: <https://www.juit.ac.in/phd-pms>.

[For more information about Department click here](#)

- g) HUMANITIES & SOCIAL SCIENCES (HSS):** The Department of Humanities and Social Sciences at JUIT offers PhD program in the area of Humanities and Management like Literature in English, Economics, Political Science, Finance, Marketing, Internet Marketing, Human Resource, Emotional Intelligence, Consumer Behaviour, Economic Development, International Business, E-Governance & CSR, and Industrial Relations etc. The PhD program at the department strongly emphasizes on the research and is structured to help students develop competence in their fields of specialization. The student works closely with their supervisor, who is the subject expert in their respective fields, to further develop their competencies so that they can solve the complex social and business problems. The program focuses on the application of theory to real world challenges where students are expected to go through a transformative learning process that enhances their research skills. The students are expected to complete one year of course work, publish their research work in reputed indexed journals and present their work in national and international conferences. The students are also encouraged to participate in different research workshops to sharpen their written and analytical skills.

[For more information about Department click here](#)

3. ELIGIBILITY CRITERIA AND SELECTION FOR PHD PROGRAMMES:

The application form is for admission to PhD Programmes at JUIT Waknaghat only.

| PhD Degree | Eligibility Criteria |
|--|--|
| PhD - Biotechnology PhD – Bioinformatics PhD – Civil Engineering PhD – Computer Science & | (i) Regular (Not Distance Mode) MTech Degree of a University or equivalent for PhD in Engineering / Technology in respective branch with 60% Aggregate Marks or CGPA |

| | |
|--|--|
| Engineering PhD – Electronics & Communication Engg. PhD – Mathematics PhD – Physics & Materials Science PhD - Humanities & Social Sciences | not less than 6 on scale of 10. (ii) Regular (Not Distance Mode) Master's Degree of a University for PhD in Sciences / Humanities / Social Sciences / Management in respective discipline or equivalent with 60% Aggregate marks or CGPA not less than 6 on scale of 10. (iii) Consistently good academic record/performance with 1st Division all through; i.e. 60% aggregate marks or equivalent CGPA of not less than 6 on a scale of 10 at both undergraduate and post graduate level. |
|--|--|

- (i) Admission shall be based on PGET Written Test followed by personal interview.
- (ii) Candidates who have qualified the Entrance test will only be allowed for the personal interview.
- (iii) NET/SLET/UGC/CSIR(JRF) or equivalent national level examination qualified candidates are exempted from the PGET written test. However, they have to appear for the personal interview.
- (iv) Each eligible candidate will have to give a short presentation before the interview committee on the topic / area of research interest.

While filling the application form applicant must mention the details sought in item No. 10 of the application form.

Provisional Admission: Students who are in the final year are eligible to apply for admission in PhD Program. The admission is subject to successful completion of qualifying examination, meeting the minimum eligibility criteria. (Candidate need to submit the qualifying examination result before 30th September 2024, failing which admission stand cancelled.)

4. WRITTEN EXAMINATION PROCEDURE:

- (i) **Weightage:** 50% component from Section A: Research Methodology and 50% subject specific component from Section B.
- (ii) **Number of Questions:** 60 Questions (30 questions from Research Methodology and 30 Questions from subject specific)
- (iii) **Marking:** (15 Questions of 01 Mark each and 15 Questions of 02 Marks each from both the components i.e. Research Methodology and specific subject)
- (iv) **Duration:** 90 minutes
- (v) **Full Marks:** 90 Marks to be normalized to 70 marks.
- (vi) **Qualifying Marks:** 50% (45 Marks out of 90 Marks)
- (vii) The syllabi for each program/ specialization are available on the University on the web site.

Personal Interview shall be conducted only for the candidates who have qualified the written entrance examination. 30 Marks weightage is assigned for personal interview.]

5. NUMBER OF SEATS:

As per availability of Supervisor and Research area of the candidate.

6. RESERVATIONS:- Reservation as per provisions of Gol.

7. FELLOWSHIP:

Fellowship Amount: Rs. 37000/- per month

Duration: 12 months in an Academic Year (Maximum 03 years of duration)

Eligibility: Full-Time Research Scholars will be provided fellowship on pro-rata basis considering actual attendance during the month.

8. APPLICATION FORM:

The students may fill / obtain the application forms in any of the following ways.

- a) Apply online and make payment using net banking /credit/debit card/UPI on website <http://www.juit.ac.in> / <https://www.juit.ac.in/juit-admissions>
- b) Apply online on website <http://www.juit.ac.in> / <https://www.juit.ac.in/juit-admissions> and make payment through bank draft.
- c) Obtain application form and brochure on payment of Rs. 1000/- or by sending a demand draft of Rs. 1000/- to JUIT Wagnaghat in favour of Jaypee University of Information Technology, Wagnaghat, payable at Shimla to the following address:-

The Registrar
Jaypee University of Information Technology
Wagnaghat, Teh. Kandaghat, Dist Solan HP, India
PIN 173234

9. HOW TO APPLY:

- Log on to <http://www.juit.ac.in/juit-admissions> and click on – PhD Programmes - 2024.
- Thereafter, candidate will be prompted to fill up the application and make the payment through Credit / Debit Card / Net banking / UPI. Alternatively, you can pay application fees through DD of Rs. 1000/- favouring “Jaypee University of Information Technology” payable at Shimla. Write the application ID No. behind the DD to enable us to link your payment.
- Once the payment has been successfully made, the candidate shall be allotted an Application ID number, which must be saved for future reference. The candidate shall also get an E-Mail of confirmation.
- There is an option of attaching / uploading the photograph, signature of candidate and parents on the online application itself.
- Candidate whose result of qualifying examination is awaited may also apply for the program. However, they have to update their qualifying examination result on declaration OR by allowable date of result update as specified in supplementary Admission Brochure, so as to be eligible for counselling.
- You should make a photocopy of the application form and retain it for your record.

- Candidates who have procured the brochure and application form from university counter after payment of Rs. 1000/-, are not required to make any further payment while submitting the application form
- It is mandatory to enter the marks sought in the application form at item no. 10. Any applications received without marks of the qualifying examination shall be rejected and candidate shall have no claim for the Merit lists.

10. SENDING OF HARD COPY OF APPLICATION FORM, IF APPLIED IN OFFLINE MODE OR FEE PAID THROUGH DEMAND DRAFT

The completed Application Form –whether purchased or print out of the offline application must be sent to JUIT Wagnaghat by **due last date** mentioned at the link http://www.juit.ac.in/admissions_all/ImportantDates.pdf at the following address:-

The Registrar
 (PhD Admission - 2024)
 Jaypee University of Information Technology
 Wagnaghat, Teh. Kandaghat, Dist Solan HP, India
 PIN 173234

Candidates are required to ensure that the hard copy of the offline completed application OR application with Demand Draft (if not paid through online) is received at the university on or before last date.

11. FEE STRUCTURE

Please note that the fee for the students being admitted for Academic Session 2024-25 is as follows:-

| Particulars | Amount (INR) |
|---|---------------------|
| Tuition Fee for academic year 2024-25 | Rs. 31650/- per sem |
| Hostel Charges* | Rs. 80000/- per sem |
| Caution Money (One time & Refundable) | Rs. 20000/- |
| Admission Charges (One time & Non Refundable) | NIL |

*Optional and if allotted. Limited hostel seats are available. For Single room occupancy Rs. 7500/- per semester Extra.

The hostel charges are subject to revision as and when deemed fit by the management considering hike in commodity prices.

For queries, write to: admission2024@juitsolan.in OR Call +91-7807868600 / 500 / 7807846021 / 047 / 048 / 049 / 050 / 064