

# Information Brochure

## Master of Technology

### M. Tech. (Computer Science)

Session 2018-2020

#### **Vision**

*To keep pace with the emerging trends in  
Computer Science and Technology*

#### **OUR AIMS**

Producing a class of computer professionals

Achieving academic excellence

Nurturing the students of today into resolute builders of the future

Discover the ultimate in the field of Computer Science and Technology

To strengthen the computer literacy missions of the Government

To enlighten the forthcoming generations with the best of computer education

To impart technical and interpersonal skills to the students

To produce computer professionals who can face not only the present but also future challenges of I.T. Industry

Endeavour to provide I.T. based solutions to the society

#### **Motto**

*To produce skilled professionals in computer applications*



## हिमाचल प्रदेश विश्वविद्यालय – कुलगीत

पवित्रित वेदमंत्रो से मनोरम देवभूमि-निलय  
विराजे नवल नालन्दा उन्हीं की छाँव में मधुमय  
हिमाचल विश्वविद्यालय  
विविध विद्यावलय, जय जय !!

धरा जो शक्तिपीठों की, धरा शत कोटि तीर्थों की  
धरा जो शैलसंस्कृति की, धरा जो नृत्य-गीतों की  
जहाँ रावी-विपाशा -चन्द्रभागा पुण्य सलिलायें  
कुसुम गलहार बनती हैं शतद्रू सगं, सरितायें

धरा माण्डव्य ऋषि की परम पावन, ज्ञानमय-चिन्मय  
हिमाचल विश्वविद्यालय  
विविध विद्यावलय, जय जय !!

जहाँ तक रम्य धौलाधार पर्वत- शृंखला दिखतीं  
वहाँ तक ज्ञान मधु रश्मियाँ नितफैलती रहतीं  
थिरकत पाँव नाटी पर, लरजते गीत चम्बा के  
स्वयं श्री शारदा साकार हो उठतीं उन्हें गाके

लिये 'शस्त्रे च शास्त्रे कौशलम्' का मंत्र जो निर्भय  
हिमाचल विश्वविद्यालय  
विविध विद्यावलय, जय जय !!

तपोरत देवदारु खड़े तथागत-सदृश हैं लगते  
सुभग सन्देश मैत्री का निरन्तर बाँटते रहते  
हिमाचल का परम गौरव, सदन विद्या-कलाओं का  
सदन विज्ञान का, तकनीकियों का, योग्यताओं का  
निरन्तर बढ़ रहा आगे उदित रवि सा, सतत समुदय  
हिमाचल विश्वविद्यालय  
विविध विद्यावलय, जय जय !!



आचार्य राजिन्द्र सिंह चौहान  
कुलपति

हिमाचल प्रदेश विश्वविद्यालय  
राष्ट्रीय मूल्यांकन एवं प्रत्यायन परिषद् द्वारा प्रत्यायित "ए" ग्रेड विश्वविद्यालय  
ज्ञान पथ, समरहिल, शिमला - 5

संदेश

मेरे लिए यह हर्ष का विषय है कि हिमाचल प्रदेश विश्वविद्यालय के कम्प्यूटर विज्ञान विभाग में शैक्षणिक सत्र 2018-19 में एम.टैक की छंटनी परीक्षा पर आधारित प्रवेश परीक्षा प्रक्रिया के लिए रूपरेखा बना ली गई है।

इस विश्वविद्यालय ने अपने अस्तित्व के लगभग 48 वर्षों में शिक्षा के प्रचार-प्रसार के कई कीर्तिमान स्थापित किए हैं तथा यह विश्वविद्यालय पूरे राज्य का एक मात्र सम्बद्धता प्रदान करने के अतिरिक्त सह-आवासीय उच्चशिक्षा का प्रगतिशील केन्द्र है।

हिमाचल प्रदेश विश्वविद्यालय अपने बहुआयामी शैक्षणिक क्षमता व सशक्त आधारभूत संरचना के साथ प्रौद्योगिकी, सामाजिक-विज्ञान एवं मानविकी विषयों द्वारा ज्ञान के संवादपरक संरचना निर्माण की दिशा में अग्रसर है। छात्रों को सामाजिक व नैतिक रूप से उत्तरदायी बनाकर सामाजिकता का निर्वहन करने में समर्थ तथा उर्वर मस्तिष्क से युक्त कर एक ऐसे व्यक्तित्व का निर्माण करना जो अपने दायित्व बोध से विपरीत परिस्थितियों में भी विमुख न हों तथा सही अर्थों में कर्मयोगी हों, यही हमारा उद्देश्य है।

मैं इस विश्वविद्यालय में शिक्षा प्राप्त करने के लिए आने वाले सभी छात्र-छात्राओं को अपनी शुभेच्छाएं देता हूँ।

  
(आचार्य राजिन्द्र सिंह चौहान)

**From the Desk of Chairman**



I take pride in inviting you to be the member of the 12<sup>th</sup> elite batch of M. Tech. (Computer Science) in the Department. The Department has earned a brand name in the academics as well as in the industry, not only in India but also abroad. The extremely skillful, determined and focused set of Computer Science and Information and Communication Technology professional being produced by the department is second to none in the world today. The students as well as the department is being nurtured by a highly qualified, motivated, and progressive group of young intellectual faculty members who are in the habit of taking any latest technological challenge head-on and delivering the best possible end results. All through, we have been striving hard to continuously provide our students the latest technological exposure by making them work on almost all the latest technological environments, giving them the complete understanding of the best theoretical concepts along with ample hands-on practice.

The field of Computer Science is growing exponentially and has started touching almost all the aspects of daily life of even the common man. With our growing economy, you as professionals-to-be definitely have a prominent constructive role to play in shaping the day-to-day life of tomorrow.

I am confident that your higher education journey through the Department of Computer Science will give you the richest experiences of your life. I am looking forward to welcome you in the department.

**(Professor Kishori Lal Bansal)**

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**Instructions and Guidelines for Admission to M. Tech. (Computer Science) session 2018-2020**

*The candidate should read the following instructions and guidelines carefully before filling up the application form and other information.*

**ADMISSION PROCEDURE**

**About the Course:**

The M. Tech. (Computer Science) is a two years full time post-graduation course spread over four semesters. In this course, the students will be taught, the core & advanced subjects of Computer Science.

**Instructions for Filling the Application Form**

**(Read the instructions/ Pre-requisite carefully before filling the application form)**

(A) Before proceeding to apply, please ensure that you have:

**1- Scanned copy of applicant's recent photograph with following specification.**

- Photograph must be a passport size color picture.
- Photograph must be a taken in full face view directly facing the camera.
- Photograph should have no shadows and red eyes.
- Maximum size 100KB.
- Photo format should be jpg/jpeg only.

**2- Scanned copy of applicant's signature with following specifications.**

- Applicant should sign with black ink on a white paper and get the signature scanned.
- The signature must be signed only by the applicant and not by any other person.
- Maximum size 100 KB.
- Scanned signature format should be jpg/jpeg only.

**3- Scanned copy of applicant's Father/Mother signature with following specifications.**

- Applicant's Father/Mother should sign with black ink on a white paper and get the signature scanned.
- The signature must be signed only by the applicant's Father/Mother and not by any other person.
- Maximum size 100 KB.
- Scanned signature format should be jpg/jpeg only.

**4- Upload documents with following specifications.**

- Applicant should upload only one document (mark sheet/certificate) black ink on a white paper and get the signature scanned.
- The signature must be signed only by the applicant and not by any other person.
- Maximum size 2 MB pdf.
- Scanned signature format should be jpg/jpeg only.

**5- Create an email account if you already don't have one.**

**6- You must give a mobile number in basic details. If you don't have mobile number, Please enter your guardian's mobile number for any further correspondence in this regard.**

**7- All mandatory fields are marked with red colored asterix.**

(B) Instructions for filling the ONLINE APPLICATION FORM

- 1- Click on "PG/UG/Ph.D./Certificate Diploma" to access the list of programs.
- 2- Choose the program and click on the program name.
- 3- online Entrance Application form has following subsequent information
  - a) Personal Information
  - b) Education and Document Details
  - c) Application Summary
  - d) Payment
  - e) Submit Reference number and application form

- 4- Please fill the personal information first.

- 5- After filling the personal information click on save button at the last of the page.
- 6- System will generate the unique Registration number along with password. Applicants are advice to note the same.
- 7- The unique Registration number along with password will be send on the email and the entered mobile number. Note down the Registration number for all future references.
- 8- After that you can continue and fill other required information or logout and login again with unique Registration number along with password.
- 9- After that Click on "PG/UG/Ph.D./Certificate Diploma" and click on "Click here for Student Login"
- 10- Login with unique Registration number along with password and you will get all the earlier submitted information in personal information page.
- 11- Applicants are required to fill all information required in different sections like Education and Documents details.
- 12- Fill Education and document detail and upload related documents. Photo and signature uploaded should be as per specifications, kindly refer to section (A) at the starting of the document.
- 13- To save the data please click on 'Continue and Save' button at the bottom of each screen.
- 14-** Step for making Application Fees Payment, you can pay the fees through online mode or by choosing Challan mode.

#### **Payment through Challan**

- a) If you select payment through **challan option**, you have to select bank and click on generate challan. After that you have to download the Challan and submit the same to the selected bank. Bank will give a reference number against the challan.
- b) Login again and submit your reference number under submit **reference number and application form** tab.

#### **Online Payment**

- a) if you select online payment mode, click on make payment
- b) on the next page select your payment gateway
- c) Click on continue for payment
- d) Choose among the given options (debit card, credit card, net banking etc.)
- e) If the payment is successfully done, you will receive a success message



with all the details

f) Click on the Submit button to get the form finally submitted.

**Note: Before proceeding further please make sure that all the fields are filled in correctly in the confirmation screen before clicking the submit button.**

[Click here to apply online](#)

All the applicants are advised to read the Prospectus/information brochure of Computer Science Department, H.P. University, Shimla-171 005 in pdf format available on [www.hpucs.ac.in](http://www.hpucs.ac.in) or [www.hpuniv.in](http://www.hpuniv.in), carefully and also ensure their eligibility in terms of the conditions/provisions mentioned in the information brochure.

Please read these instructions carefully before proceeding with the ONLINE filling of **M. Tech. (Computer Science)** Application Form 2018. Click here for online application for admission to M.Tech.(Computer Science)

**Eligibility:**

Candidates, who have passed Master degree with minimum of 55% marks (50% marks for SC/ST category), or equivalent Grade point, in Mathematics/ Physics/Electronics/Computer Application(MCA)/ Computer Science / Information Technology/4-years Bachelor's degree in Engineering /Technology.

**OR**

Any examination, of university in foreign country, recognized as equivalent for the above purpose by equivalence committee of H. P. University or on recommendation of Association of Indian Universities with 55% marks (50% marks for SC/ST).

**Mode of Selection:**

The admission to M. Tech. (Computer Science) will be through the merit of an entrance test of duration 3 hours to be conducted by H.P. University, Shimla. The entrance test shall be of 200 MCQ type questions of one mark each, comprising of the following components:

Section	Contents	Marks
A	Logical Ability	40

B	Mathematics of Graduation level	40
C	English and General Awareness	20
D	Computer Ability	100
<b>Total</b>		<b>200</b>

The candidates who have qualified GATE/ NET/ SLET in Computer Science or Engineering will be given 20% extra of the marks obtained in the entrance test for calculating the merit for the purpose of admission.

**Minimum pass marks in the entrance test shall be 35% i.e. 70 marks out of a total of 200.**

Number of Seats: 18

Supernumerary Seats: 02(Reserved for single child who is a girl){as per notification no4-16/2012 HPU(ACAD.)dated 18-07-2015}

Supernumerary seats 02(Reserved for the students of state of **Jammu and Kashmir Migrants**)

Seats for in-service candidates: 05(Reserved)

Few Supernumerary seats for foreign National who apply through ICCR are also available as per H.P. University Rules.

**Total: 27**

18 seats will be filled by following reservation for different categories as per the 106 point reservation roaster followed by H. P. University. In case, any of these seats (supernumerary and in-service seats for candidates) remain vacant due to the unavailability of suitable eligible candidates, these seats shall remain vacant and under no circumstances, conversions shall be allowed.

Being a self-financing course, in case the numbers of selected candidates after entrance exam are less than nine (09), then the course will

not run for the academic year.

**Application Fee:**

The duly filled in application form along with a demand draft of requisite amount in favor of the Chairman, Department of Computer Science, H. P. U. Shimla and payable at Shimla, shall reach the Chairman, Department of Computer Science, H.P. University, Summer Hill, Shimla-171005 on or before the last date of submission:

**Application Fee for General Category: Rs.1000/-**

**Application Fee for SC/ST/IRDP/Antodaya Category: Rs.500/-**

**CENTRE FOR THE ENTRANCE TEST**

The Entrance Test for admission to the M. Tech. course shall be held at the following centre only:

- a) H.P. University Campus, Summer Hill, Shimla

**RESERVATION FOR M. TECH.**

(a) 15% and 7.5% of the seats shall be reserved for bonafide Himachali Scheduled Castes and Scheduled Tribes candidates respectively who have passed the qualifying examination from any University established by law in India which is equivalent to the qualifying examination of H.P. University.

**(b) The remaining seats shall be filled as under**

- (i) 25% seats shall be open to all the candidates irrespective of the institution from where they have passed their qualifying examination, in which the graduates of this University shall also be eligible to compete through competitive test.
- (ii) 75% of the seats shall be filled out of the candidates who have passed their qualifying examination from Himachal Pradesh University or H.P. Krishi Vishvavidyalaya or Dr. Y.S. Parmar University of Horticulture and Forestry, Himachal Pradesh Technical University or Central University of Himachal Pradesh or the candidates who are Himachal Pradesh Domicile irrespective of passing qualifying examination from any other Universities established by law in India which is equivalent to the qualifying examinations of Himachal Pradesh University.
- (iii) 3% of the seats shall be reserved for Physically Handicaped candidates who are Himachal Pradesh Domicile. The Registrar, H.P. University, Shimla vide letter/notification No. 4-16/2012HPU(Acad.) dated 2.1.2013 has conveyed the decision of Executive Council of its meeting held on 17.9.2012 taken vide Any Other Item adopted the H.P. State Govt.'s

Instructions/Rules that no tuition fee be charged from the students with 40% and above disability. The student with special needs with more than 40% disability, admitted in any course of study running in the Himachal Pradesh University, Shimla will not be charged any fees with effect from the current academic session 2015-16 vide notification No. 4-51/2015 HPU(Acad) dated 25 July 2015

- (C) Two supernumerary seat shall be reserved for Himachali bonafide only/single child who is a girl. In this respect, an affidavit issued by a competent authority ie SDM/Tehsildar/or higher authority) shall have to be submitted by the candidate at the time of counselling.

**d) In-service Candidates:**

5 seats are reserved for in-service applicants.

The 'in-service' candidate shall be a candidate who is an employee (on a regular or contract basis) of Govt. of Himachal Pradesh (including Colleges & Universities under the Govt.) or Govt. of India or Boards/Corporations under state or centre governments having their headquarters in the state and is serving the organization in which currently employed for at least last 2 years. An in-service candidate has to submit the following along with the application form:

- a) The appointment letter from the employer and a certificate from the employer that he/she has been working with the concerned organization for at least last two years and shall continue to be on their roll for at least whole of the duration of the course,
- b) NOC on the prescribed proforma from his/her employer that in case the candidate is selected for the admission, he/she shall be granted a Study leave for a period of two years from the date of the commencement of the course as provided by the department. Upon confirmation of the admission, a letter on the prescribed proforma (provided by the department) from the employer, sanctioning study leave for a period of 2 years is to be submitted in the department on or before the stipulated last date of admission along with an affidavit from the court duly signed by the notary clearly stating that if the information supplied in any of the above mentioned documents is found to be contrary to the facts at any stage, the candidate shall be held responsible for it and the university shall have the right to cancel the admission/degree of

the candidate.

The admission of such candidates shall be confirmed only if a letter from the employer sanctioning the study leave of two years is deposited within the stipulated period for the admission as mentioned in the prospectus. The validity of the above mentioned documents shall be assessed by the department and the department shall also have the right of corresponding with the employer of the candidate in case of any doubts regarding these documents. The decision of the department in rejecting or accepting these documents shall be final. In any case, notwithstanding the admission to the said course, if the department finds that the candidate has supplied false or misleading information through any of the above mentioned documents, the university shall have the right to a) cancel the admission/degree of the candidate, and b) to initiate civil/criminal proceeding against the candidate.

**Roster Scheme:**

**106 POINT RESERVATION ROSTER FOR M.A. PHYSICAL EDUCATION**

**W.E.F.1993-94, ONWARDS, M.PHIL. W.E.F. 1999 ONWARDS and LL. M. W.E.F 1992 ONWARDS.**

<b>Seat No.</b>	<b>Seat No.</b>	<b>Seat No.</b>	<b>Seat No.</b>	<b>Seat No.</b>
1	26 SC	51	76	101
2	27 ST	52 SC	77	102
3	28	53	78 SC	103
4	29	54 ST	79	104 SC
5	30	55	80	105
6 SC	31	56	81 ST	106 ST
7	32 SC	57	82	
8	33	58 SC	83	
9	34	59	84 SC	
10	35	60	85	
11	36	61	86	
12	37	62	87	
13 SC	38	63	88	
14 ST	39 SC	64	89	
15	40	65 SC	90	
16	41 ST	66	91 SC	
17	42	67	92	
18	43	68 ST	93	
19 SC	44	69	94 ST	
20	45 SC	70	95	
21	46	71 SC	96	
22	47	72	97	
23	48	73	98 SC	
24	49	74	99	
25	50	75	100	

### **FEES STRUCTURE**

a) From all students, except for the in-service candidates, a fee of Rs.30,000/- (Rupees Thirty Thousand only) per annum and an Equipment Fee of Rs.5, 000/- (Rupees Five Thousand only) per annum along with other university dues shall be charged by the department. The demand draft of Rs.35,000/- ( Rupees Thirty Five Thousand only) per annum payable at Shimla in favor of the Chairman, Department of Computer Science, H. P. University, Shimla-5 is to be deposited at the time of admission and subsequently in the beginning of the 2<sup>nd</sup> year.

b) For in-service students, the fee shall be Rs.50, 000/- (Rupees Fifty Thousand only) per annum and an Equipment Fee of Rs.5, 000/- (Rupees Five Thousand only) per annum along with other university dues shall be charged by the department. The demand draft of Rs.55, 000/- (Rupees Fifty Five Thousand only) per annum payable at Shimla in favor of the

Chairman, Department of Computer Science, H. P. University, Shimla-5 is to be deposited at the time of admission and subsequently in the beginning of the 2<sup>nd</sup> year.

- c) The other university dues shall be charged as per university rules amended from time to time.
- d) Fee once deposited will not be refunded under any circumstances.

### **COUNSELING**

The counseling shall be held in the Department of Computer Science in the H.P. University, Shimla for admission to the M. Tech. (Computer Science) course. The candidate has to attend the counseling in person along with all the original testimonials such as Date of Birth proof, 10+2, graduation, post-graduation, NET/SLET/GATE, bonafide resident proof, proof of only child who is a girl, proof of category etc.

In case the candidate does not attend the counselling along with the testimonials his/her candidature for admission stands cancelled.

### **Resolving a Tie:**

The following Formulae shall be adopted to resolve a tie for Admission:

- (i) In case of a tie in marks scored in the entrance test, the candidate securing higher %age of marks in the qualifying exam shall be admitted first.
- (ii) Even if the tie is still not resolved, the candidate having higher aggregate marks in any two of the following (in which his marks are higher) shall be admitted first: Matriculation/ Hr. Sec. Part-I/Hr.Sec.Part-II/Prep/Pre-Med/Pre-Engineering/Intermediate/any other equivalent examination.
- (iii) Further, if the tie is still not resolved, the candidate younger in age shall be admitted first.

### **Refusal for Admission:**

A candidate will be refused admission to the course if he/she does

not fulfill minimum eligibility conditions. Notwithstanding anything contained in the foregoing rules, a student shall be refused admission if his conduct during any previous stay in University has been unsatisfactory. Such student shall, however, have the right to appeal to the Vice-Chancellor whose decision shall be final. A student who has been expelled or rusticated shall not be admitted to any course of study in the University without the prior approval of the Vice-Chancellor.

### **SCHEME OF EXAMINATION**

English will be the medium of instruction and examination.

1. Each theory paper shall be of 3 hours duration and shall carry 100 marks (75 marks for end semester theory examination and 25 marks for continual internal assessment).
2. In each theory paper, nine questions are to be set. Two questions are to be set from each Unit and candidate is required to attempt one question from each unit. Question number nine will be compulsory, which will be of short answer type with 5-10 parts, out of the entire syllabus. In all, five questions are to be attempted.
3. Each practical paper shall be of 3 hours duration and will carry 100 marks (50 marks for end semester practical examination and 50 marks for continual internal assessment).
4. In the III semester each student shall be:
  - a) Attached to a teacher of the Department who shall act as a guide for seminar, minor project and Dissertation work of the students in III & IV semesters.
  - b) Assigned a topic by the guide and the students are required to prepare and present a seminar.
  - c) Assigned a topic for carrying out a minor project which normally may be related to the findings of a thorough study on a research area of significance which is relevant to the field of Computer Science. At the end of III semester, each student has to submit 4 nos. of copies of spiral bound report of his findings on the topic allotted to him/her in the office of the Department along with the softcopy of the same on a CDROM/DVD.



d) Assessed and evaluated for minor project by an external examiner.

5. In the IV semester, each student is required to:

a) Work on a topic in a significant area of research relevant to the field of Computer Science for dissertation under the guidance of his/her guide.

b) Submit 4 nos. of hard bound copies of the dissertation in the office of the Department along with the softcopy of the same on a CDROM/DVD.

c) To ensure the quality of the research work carried out by them in the III & IV semester, each student, hence is required to participate in some relevant regional/national level conferences/ workshops/ seminars during these semesters. Therefore, it is mandatory for each student to publish at least one research paper (Full paper or abstract or extended abstract in the proceedings in print version/ e-version) in a regional/national level journal/ conference/ /International Journal/ workshop/ Seminar. The certificate/proof of the published paper along with the paper shall form the part of the submitted dissertation. The students shall not be allowed to submit their dissertation without completing this requirement.

6. The dissertation of each candidate shall be sent to the external examiner well in advance by the Department of Computer Science, H. P. University before the conduct of the viva-voce examination.

7. The dissertation will be jointly evaluated by internal guide and external examiner.

8. Internal assessment will be given on the basis of class tests (best of 2 in a semester), seminars, surprise quizzes, class participation and regularity of the student in the class.

**Promotion Rule:**

The promotion norms of the MCA course are to be followed for the M.Tech. course too.

**Curriculum Schema:**

**MASTER OF TECHNOLOGY in COMPUTER SCIENCE  
M. Tech. (Computer Science)**

**First Semester**

Paper No.	Title	Periods per Week	Max Marks (Theory)	Continual Internal Assessment	Exam Duration Hours
MT-101	Computer Architecture and Parallel Processing	4	75	25	3
MT-102	Software Engineering	4	75	25	3
MT-103	Computer Oriented Optimization Method	4	75	25	3
MT-104	Data Structure & Algorithm Analysis in C	4	75	25	3
MT-105	Operating System and Case Study	4	75	25	3
MT-106	Practical on MT-103	6	50	50	3
MT-107	Practical on MT-104	6	50	50	3

**Second Semester**

Paper No.	Title	Periods per Week	Max Marks (Theory)	Continual Internal Assessment	Exam Duration Hours
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MT-201	Object Oriented Programming with JAVA	4	75	25	3
MT-202	Computer Networks	4	75	25	3
MT-203	Distributed Data Base Management System	4	75	25	3
MT-204	Data Warehousing and Data Mining	4	75	25	3
MT-205	Software Quality and Testing	4	75	25	3
MT-206	Practical on MT-201	6	50	50	3
MT-207	Practical on MT-203	6	50	50	3

**Third Semester**

Paper No.	Title	Periods per Week	Max Marks (Theory)	Continual Internal Assessment	Exam Duration Hours
MT-301	Research Methodology in Computer Science	4	75	25	3
MT-302	Elective – 1	4	75	25	3
Paper No.	Title	Periods per Week	Max Marks	Continual Internal Assessment	Evaluation Marks
MT-303	Seminar	8 in computer lab 4 in library	100	25	75 ( by Department )
MT-304	Minor Project	8 in computer lab 4 in library	200	100	100 ( by External Examiner )

**Fourth Semester**

Paper No.	Title	Periods per Day	Marks
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			<b>Maximum Marks</b>	<b>Continual Internal Assessment</b>	<b>Publications</b>	<b>Viva-Voce Examination</b>
MT-401	Dissertation	5	500	125	125	250

**List of Electives**

MT-E01	Advanced Software Engineering Concepts
MT-E02	Artificial Intelligence & Expert System
MT-E03	Automata Theory and Compiler Design
MT-E04	Cyber Law
MT-E05	Cloud Computing
MT-E06	Distributed Systems
MT-E07	Graph Theory
MT-E08	Research Methodology
MT-E09	Service Oriented Architecture

**Attendance:**

In order to be eligible to appear in the university examinations a candidate should have secured 75% attendance in each of the concerned subjects (theory as well as practical).

**Note:**

Merely appearing in the entrance exam does not entitle the candidate for the right to admission unless the candidate fulfills the eligibility criteria for admission to the M. Tech. course. The candidate has to submit duly attested copies of the following certificates at the time of attending the counseling:

- a) Proof of Age (Matriculation/ X<sup>th</sup> class certificate)
- b) 10+2 certificate
- c) B. A. / B. Sc. / B.E./B. Tech./MCA/M. Sc. or equivalent certificate
- d) Category certificate i.e. SC/ST/IRDP/Antodaya, if applicable
- e) Single girl child affidavit, if applicable
- f) Certificates supporting In-service candidature, if applicable.
- g) an affidavit in which the candidate states that he/she is not doing any

govt/private job.

It will be the entire responsibility of the candidate(s) to submit the application form complete in all respects within the stipulated date and time. All disputes are subject to legal jurisdiction of courts in Shimla only.

**IMPORTANT DATES:**

**(A) Application Form Submission:**

Last date for the receipt of application forms in the office of the Chairman of the Department:

Date	Day
02 June ,2018	Saturday

**(B) Date of uploading admit cards**

Date	Day
07 June ,2018	Thursday

**(C) Date of Entrance Test:**

Date	Day	Time
18 June, 2018	Monday	2:00PM - 5:00 PM

**(D) Date of Declaration of Result:**

Date	Day
07July,2018	Saturday

**Note:**

- i) The candidates shall be called for Counseling/Admissions in order of merit in the ratio 1:3 i.e. three times the number of available seats.
- ii) The result of the entrance examination and list of candidates called for interview will be available on the website of the department (<http://hpucs.ac.in/>). No separate counseling letter will be issued /sent to the candidates.
- iii) The counseling for the applicants for admission to M. Tech. course shall be held in the Department as per the following schedule:

Date of counseling/ Admission	Day	Time for reporting for interview in the office of the Department	
		From	To
16/07/2018	Monday	10:00 AM	2:00 PM

- iv) The last date for admission with the permission of Vice-

Chancellor, i.e. the deadline for closing admission, even if some seats remain vacant:

Date	Day
11-08-2018	Saturday

### **FACULTY & OTHER STAFF**

The Department has one of the highest qualified faculty members in the region. The following faculty members are involved in various academic and professional activities in the Department, within the campus and outside the campus.

#### **Faculty**

S. No.	Name	Qualification	With us since	Total Experience
1	Dr. K.L. Bansal, Professor & Chairman	MCA, Ph.D.	1995	23 Years
2	Dr. Arvind Kalia, Professor	MCA, Ph.D.	1989	29 Years
3	Dr. A.J. Singh, Professor	B. Tech., M. Sc., Ph.D.	1992	26 Years
4	Dr. Manu Sood, Professor,	B.E., M. Tech. , Ph.D.	1993	25 Years in academic & 5 years in industry
5	Dr. Aman Kumar Sharma, Professor	MCA.,Ph.D.	1997	21 Years
6	Dr. Jawahar Thakur, Professor	B. Tech., M. Tech.,Ph.D.	1997	21Years
7	Dr. Anita Ganpati, Professor	MCA, M. Tech.,Ph.D.	2001	17 Years

#### **Technical staff**

S. No.	Name	Qualification	Designation
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1	Mr. Syed Waji Hassan	B.Sc.	Lab. Technician
2	Mr. Vijay Kumar	B.Sc., B.Ed. (Non-Medical), PGDCA, M.Com. M.Sc. (Computer Science)	Lab. Attendant
3	Mr. Manjit Anand	B.A.,MCA	Lab. Attendant

### Supporting Staff

S. No.	Name	Designation
1	Mr M. C. Negi	Sr. Asstt.
2	Mr. Govind Ram	Clerk
3	Mr. Dina Nath	Peon
4	Mr. Sunny Kumar	Peon cum Frash

### (D) Teaching / Vacations Schedule:

The following schedule shall be followed for the academics in the M.Tech.(CS)courses for the session 2018-2020 in the Department of Computer Science, H.P. University, Shimla:

<b>Regular Teaching</b>			
(i)	I / III Semester	21-07-2018	11-11-2018
(ii)	II/IV Semester	18-02-2019	25-05-2019
<b>Vacation Schedule</b>			
(i)	Winter Vacation	01-01-2019	17-02-2019
(ii)	Summer Vacation	20-06-2019	25-06-2019

### portant Phone Numbers

Designation	Phone No.
Vice-Chancellor Office	2831363
Dean of Studies	2830922
Dean Student Welfare	2830926

Chairman, Computer Science Department	2832569
Registrar	2830912
Chief Warden	2830917
Chief Security Officer	2831270

**Website Address**

- <http://hpucs.ac.in/>
- <http://hpuniv.nic.in/>

B

M.Tech.(CS)-2018







## KULGEET---- THE UNIVERSITY ANTHEM

Adorned with the holy Veda Mantras  
The abode of the gods nestles the novel Nalanda  
Himachal University  
The jewel of myriad learning  
Victory to you!

The land where deities abide, a hundred pilgrimages invite  
The land of mountain culture where dance and song entice  
The land where the Ravi-Vipasha-Chandrabhaga and  
Sutlej weave a garland bright.

Rishi Mandavya's sacred land, is alive with learning and purity  
Himachal University  
The jewel of myriad learning  
Victory to you!

As far as the eyes can behold, the glorious Dhauladhars unfold  
The radiant rays of knowledge light up every hill and valley  
As the feet sway to the Nati and lips sing the Chamba songs  
The Goddess Sharada herself appears in incarnate form

Fearless with the mantra of Shastre cha Shastrey Kaushalam  
Himachal University  
The jewel of myriad learning  
victory to you!

The ascetic deodar trees stand with equanimity  
Reminiscent of the Buddha in their calm tranquility  
They offer ceaselessly, missives of sweet amity  
Himachal's supreme dignity, the seat of erudition—  
Of Art and Science, Technology and Ability

Marching steadily on, like the risen sun of dawn  
Himachal University  
The jewel of myriad learning  
Victory to you!