

INDIAN INSTITUTE OF TECHNOLOGY

DHARWAD



॥ सा विद्या या विमुक्तये ॥

भारतीय प्रौद्योगिकी संस्थान धारवाड
Indian Institute of Technology Dharwad

Information Brochure

(For Indian National applicants)

M.S. Admissions

Spring Semester 2020-21

CONTENTS

A.	SCHEDULE OF MASTER OF SCIENCE (M.S.) ADMISSION – (Tentative)	4
B.	APPLICATION CATEGORIES AND FINANCIAL SUPPORT	4
B.1	Teaching Assistantship (TA)	4
B.2	Financial and Project Assistantship	5
B.3	CSR	5
B.4	External (EX)	5
C.	APPLICATION PROCESS	6
D.	FEES, DEPOSITS & HOSTEL RENT	8
E.	INFORMATION PERTAINING TO HOSTELS	9
F.	DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING	12
F.1	Eligibility for Admission	12
F.1.a	. Qualifying Degree	12
F.1.b	Minimum score in the qualifying degree	12
F.1.c	Applicants who are in the final phase of getting qualifying degree	12
F.2	Financial support category	13
F.3	Guidelines for Shortlisted Applicants	13
	The precise guidelines related to the selection process will be intimated at the time of announcement of shortlisted candidates on Institute Website (https://www.iitdh.ac.in/academics_ms.php).	13
F.4	Modality of selection process	13
F.5	Focus area of research	13
F.6	Syllabus – Computer Science and Engineering	14
F.7	Department level contacts for admission process enquiries	14
G.	DEPARTMENT OF ELECTRICAL ENGINEERING	15
G.1	Eligibility for Admission	15
G.1.a	General Criteria	15
G.1.b	Minimum score in the qualifying degree	15
G.1.c	Applicants who are in the final phase of getting qualifying degree	15
G.2	Financial support category	15
G.2.1.	Teaching Assistantship (TA)	15
G.2.2	External (EX)	16
G.3	Modality of selection process	16
G.3.a	Syllabus – Electrical Engineering	17
G.4	Department level contacts for admission process enquiries	17
H.	APPENDIX A	18

Section I

General Information on Admission Process

A. SCHEDULE OF MASTER OF SCIENCE (M.S.) ADMISSION – (Tentative)

Serial No.	Description	Relevant dates
1	Last Date to apply online	22-Nov-2020
2	Online Interview starts	24-Nov-2020
3	Online Interview ends	11-Dec-2020
4	Declaration of final list of selected candidates	18-Dec-2020
5	Spot admission starts	26-Dec-2020
6	Spot admission closes	28-Dec-2020

All potential candidates are requested to visit institute website regularly for updated information about the schedule, especially in context on ongoing Coronavirus (COVID-19) related developments. Future updates regarding the admission process will be made available on the institute website under section Academics >> Admissions >> M.S.

B. APPLICATION CATEGORIES AND FINANCIAL SUPPORT

IIT Dharwad admits candidates for full time M.S. Programme, under Teaching Assistantship (TA), Financial Assistantship (JRF from UGC/CSIR NET, INSPIRE Fellowship etc.), CSR, Project Assistantship, and External (EX) schemes.

B.1 Teaching Assistantship (TA)

Funded by MHRD, the TAs are expected to assist in the academic/administrative work for smooth functioning of the Institute. Students under this category are entitled to financial support as per the MHRD norms.

1. The assistantship is payable for a maximum duration of two and half years or till the date of defence whichever is earlier. At present, the monthly rate of assistantship is ₹12400.
2. To get the Teaching Assistantship stipend, the students concerned must assist in teaching, research and/or administrative work as assigned by the respective Academic Unit to the extent of 8 hours work per week.
3. The continuation of the assistantship will be subject to the satisfactory performance of the duties assigned by the Departments as well as satisfactory academic performance.
4. As per MHRD directives, the employees on the rolls (with or without pay) of any organization are not eligible for admission under this category. Candidates selected in this category have to resign from the current job and submit a relieving letter from their employer before joining the programme.

B.2 Financial and Project Assistantship

Funded from projects sponsored by industries and government funding agencies. Under this category, candidates will be paid fellowship as per the rules & regulations of the governing project.

B.3 CSR

Funded by corporates under the corporate social responsibility (CSR) scheme of the Government of India. The fellowship is payable for a duration as specified by the supporting organization for a particular project.

B.4 External (EX)

The candidates employed in recognized R&D organizations and desirous of pursuing M.S. programme while continuing in employment may apply for admission as external candidates. After fulfilling the coursework requirement at the Institute, these candidates will be allowed to register for M.S. with a Supervisor (internal) from the Institute and a Co-supervisor (external) from their parent organization where they will be doing the research work. The admissions are based on the following norms:

1. The competence of these candidates will be assessed along with the regular candidates.
2. On the day of selection process, the candidate should submit a Sponsorship Certificate (Appendix A) from the organization in which he/she is employed giving an undertaking that the candidate would be released from the normal duties to fulfil the coursework requirement (and qualifier examination, if applicable). The certificate should also provide details of the facilities in the organisation relevant to the research programme and that would be made available to the candidate for carrying out his/her thesis work.
3. The candidate is required to be at the Institute as a full-time student for the coursework (and qualifier examination, if applicable) of his/her M.S. Programme. The coursework requirement is likely to be a period of 1-2 semesters. Depending on the student's background and the programme requirements, an additional semester may be needed to complete the coursework/qualifier examination.
4. To promote interaction between the internal supervisor and external co-supervisor, meetings between them should be arranged at least once in a semester in the Institute or in the sponsoring organization.
5. The M.S. registration of an external candidate would be reviewed at the end of each semester from the date of registration in terms of his progress in courses/seminars/approved research programme by a Research Progress Committee (RPC) nominated by the concerned Department and approved by Academic Program Evaluation Committee (APEC).
6. The option of external registration is for applicants who are working in well-equipped scientific institutions, laboratories, R&D establishments and industrial organizations engaged in research based activities. Persons working in colleges/universities are NOT eligible under this category.
7. At the time of joining the programme, the students will have to produce a "Relieving certificate" from his / her employer that he / she has been fully relieved from normal duties during the semester(s) to complete the course work and other academic work at IIT Dharwad.

Based on the information provided by the applicants a short-list of candidates called for the selection process will be declared on the Institute website on the date specified in the schedule. Only the short-listed candidates are permitted to participate in the selection process.

C. APPLICATION PROCESS

1. Please read all the instructions given in the brochure carefully before filling up the application form online
2. Application fee has to be paid prior filling online application. The transaction details such as Reference No, Transaction Date and Name of the Account Holder have to be mentioned accurately in the application form. The contact number mentioned in the remarks/comments field of the online payment mechanism has to match with the one which will be entered while filling the application form. It is also recommended to upload a proof of payment of application fee in pdf format just before submission of the online form.
3. Application fee has to be paid prior filling online application. The transaction details such as Reference No, Transaction Date and Name of the Account Holder have to be mentioned accurately in the application form. The contact number mentioned in the remarks/comments field of the online payment mechanism has to match with the one which will be entered while filling the application form. It is also recommended to upload a proof of payment of application fee in pdf format just before submission of the online form.
4. This information brochure and future updates regarding the admission process will be made available on the institute website under section Academics >> Admissions >> M.S.
5. You are required to submit the application form online. There are no downloadable forms available. After filling the form, you are advised to take a print and keep the same for future reference.
6. The application fee is as follows:

S.No.	Category	Application fee
a	Women candidates	Rs. 100/-
b	SC/ST/PwD candidates	Rs. 100/-
c	All other candidates	Rs. 200/-

7. The fee is to be paid by NEFT/RTGS Online Payment System. The details of the institute bank details are:
8. The fee is to be paid by NEFT/RTGS Online Payment System. The details of the institute bank details are:

BANK: State Bank of India
Account Name: REGISTRAR IIT DHARWAD
Account No.: 35636327083
Branch: SBI - Main Branch, Dharwad
IFSC: SBIN-0000833

9. The transaction details like: UTR/ITR/Transaction Number with date are to be necessarily provided in filling up the Online Application Form. The Application Form without valid online payment details will not be considered. Application FEE is Non-Refundable.
10. Applicants may find it convenient to keep following information handy while filling the application form online (whichever relevant):
 - i) Skype Id
 - ii) passport size photo whose size is less than 50 kb
 - iii) application fee transaction details of application fee payment e.g. reference no, date of transaction, Name of account holder, phone no used for online payment
 - iv) Educational details from secondary school onwards
 - v) GATE qualification details
 - vi) Statement of Purpose (pdf file)
 - vii) proof of application fee payment (pdf file)
 - viii) list of fellowship/ awards
 - ix) publications
 - x) any other achievements/information.
11. Amendments to the form will not be possible once the last date to apply online is over. However, amendments can be considered if the applicant resubmits the entire form without making repeat fee payment before the deadline.
12. Economically Weaker Sections (EWS) candidates may note that the limit of annual income is Rs. 8 lakhs for determining the eligibility for benefit under Economically Weaker Sections (EWS) reservation. The EWS certificate issued by the Competent Authority in the prescribed format must be submitted at the time of selection.
13. Candidates belonging to OBC – NCL (Non Creamy layer) as per Government of India norms should produce certificate from competent authority at the time of selection.
14. Check your emails regularly for any updates from the institute regarding the selection process.
15. Keep checking the institute website regularly for updates regarding the selection process. Shortlisted candidates list will be uploaded on the institute website as per the schedule.
16. Candidates called for written test / interview should bring with them Photo ID Card, Passport size photographs (3), Admit Card, Printed Copy of Online Application Form, Photocopies of Academic Transcripts & Experience Certificates, Caste Certificate (if applicable), PwD Certificate (if applicable), EWS Certificate (if applicable), Thesis/Dissertation/Report/Publications and all other relevant documents.
17. If the fees are not paid before the due date for 1st round by the students who were offered admission (in 1st round), the admission may be cancelled and waitlisted candidates may be offered admission if the department admission committee recommends so.

Based on the information provided by the applicants a short-list of candidates called for the selection process will be declared on the Institute website on the date specified in the schedule. Only the short-listed candidates are permitted to participate in the selection process.

D. FEES, DEPOSITS & HOSTEL RENT

S. No	Fee Description	Amount (in INR) General/OBC/EWS	Amount (in INR) For SC/ST/PwD
A. One-time payment at the time of admission			
1	Admission fee	2,200.00	2,200.00
2	Graduation transcript fee	500.00	500.00
3	Medical examination	400.00	400.00
4	Provisional certificate	500.00	500.00
5	Thesis Fee	2,500.00	2,500.00
6	Student welfare fund	1,000.00	1,000.00
7	Modernisation & upgradation	2500.00	2500.00
8	Identity card	500.00	500.00
	Sub-total (A)	10,100.00	10,100.00
B. Fees per semester			
1^	Tuition Fee-Statutory fee	5,000.00	Nil
2	Examination fee	1,000.00	1,000.00
3	Registration fee	750.00	750.00
4*	Gymkhana fee	525.00	525.00
5	Student benevolent fund	500.00	500.00
6*	Medical fee	450.00	450.00
7	Hostel rent	-	-
8	Electricity & water charges	-	-
9	Hostel establishment charges	3,000.00	3,000.00
10	Mess establishment charges	1,550.00	1,550.00
	Sub-total (B)	12,775.00	7,775.00

C. Deposits (refundable) to be paid at the time of admission			
1	Institute security deposit	1,000.00	1,000.00
2	Library security deposit	1,000.00	1,000.00
3	Mess security deposit	1,000.00	1,000.00
	Sub-total (C)	3,000.00	3000.00
GRAND TOTAL FEE (A+B+C)		25,875.00	20,875.00

NOTE:

- a. All the SC/ST/PwD-Divyangjan students are exempted from payment of Tuition fee.
- b. The Hostel Room rent (Rs.2,000/-), Electricity & water charges (Rs.3,000/-) and Mess Fee advance (Rs.26,000/-) have not been charged presently for Autumn Semester.
- c. *The Gymkhana Fee & Medical Fee have been partially charged (i.e. 30% each of the actual cost).
- d. The reduction in fee is due to the present COVID-19 conditions and if in case the students are required to join the Institute in future (during Semester), then the reduced portion will be required to be paid on further notice (on pro-rata basis, wherever applicable).
- e. ^IIT Dharwad reserves the right to revise the Tuition Fee-Statutory Fee (in future).

Kindly note that the above-mentioned fee structure is applicable for TA category students. The tuition fee and other heads may differ in case of other categories (Project/FA/External etc.). The details of the applicable fee structure are available on our website at https://iitdh.ac.in/academic_circulars.php

The fee structure will also be made available to the selected candidates at the time of announcement of results for this round of admission.

E. INFORMATION PERTAINING TO HOSTELS

About IIT Dharwad	Kindly visit the website https://www.iitdh.ac.in/ for available facilities
Hostel Room Allocation (on sharing basis)	You will be allotted room in the hostel & the room key will be handed over on your arrival at the Institute. Each room will accommodate roughly two/four students (depending on the prevailing conditions) and has an attached bath & toilet.
Are hostel rooms furnished	Each student will be provided a cot, chair & study table and wardrobe. Students can purchase mattress/bedding, bucket, etc. locally. Arrangements will be made for on-campus shopping for these items.
Possession of motorized vehicle	NOT ALLOWED, however bicycle is permitted in the campus.
Climatic conditions	The weather at Dharwad is pleasant throughout the year. Generally, it will be raining in the months of June to September and weather will be windy and cold during the months of October to January. It is suggested that you carry protective clothing accordingly.

Section II

Department Specific Information

F. DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

F.1 Eligibility for Admission

F.1.a . Qualifying Degree

i. B. Tech / B. E. in Computer Science and Engineering

OR

ii. Any B. Tech / B. E. in allied Engineering branches

OR

iii. Master of Computer Applications (MCA)

OR

iv. MSc in Computer Science

A valid GATE score in Computer Science and Engineering*

*Valid GATE score is essential for candidates applying in TA category (except for candidates who have B.Tech. or equivalent degree from IITs or BS degree from IISc with minimum CPI/CGPA of 8.0 on the scale of 10). GATE score is not mandatory for the EX category.

F.1.b Minimum score in the qualifying degree

For General/OBC category candidates and/or for candidates where no concession in academic performance is called for, the eligibility criteria in the qualifying degree (B.Tech./B.E.) is either:

1. a minimum of 60% marks (without round off) in aggregate over the entire duration of the undergraduate program.
2. a minimum Cumulative Grade Point Average (CGPA) or Cumulative Performance Index (CPI) of 6.0 on the scale of 0-10; with corresponding proportional requirements when the scales are other than on 0-10, (for example, 4.8 on a scale of 0-8).
3. Candidates with MSc in Computer Science have eligibility criteria of a minimum of 60% marks in both BSc in Computer Science and MSc in Computer Science.
4. Candidates with MCA have eligibility criteria of a minimum of 60% marks in both BCA and MCA.
5. For SC/ST/PwD category candidates, a relaxation of 5% in the performance at the qualifying degree is applicable.

Note that merely satisfying the eligibility conditions does not guarantee selection into the programme.

F.1.c Applicants who are in the final phase of getting qualifying degree

Students who are in the final phase of receiving above mentioned qualifying degree and who are likely to graduate before commencement of Spring 20-21 semester of IIT Dharwad are also eligible to apply. However, if offered, the admission to those candidates would be provisional. To join an academic program at IIT Dharwad, such candidates need to furnish necessary documents regarding completion of the degree on the date of joining mentioned in the Section A above. They need to meet the criteria specified in section above considering updated score in the qualifying degree, in the meanwhile, the aggregate academic performance announced by the

respective university till the last date for submission mentioned in section A should be used to determine eligibility for application and same to be reported in the online application.

F.2 Financial support category

The Dept. of Computer Science and Engineering at IIT Dharwad invites application for the MS programme under the following categories *only* for the Spring 2021 semester – a) TA b) EX. The candidate applying under EX category should submit a provisional sponsorship certificate from the organization in which he/she is employed and original certificate sponsorship certificate if selected for the MS programme.

F.3 Guidelines for Shortlisted Applicants

The precise guidelines related to the selection process will be intimated at the time of announcement of shortlisted candidates on Institute Website (https://www.iitdh.ac.in/academics_ms.php).

F.4 Modality of selection process

Only the short-listed applicants are permitted to participate in the selection process. The selection process may consist of online screening tests/written tests and/or interviews. The tests and interviews will be based on the topics listed in Section F.6. The candidates are encouraged to check the Institute Website from time to time. Selection committee decisions are final in all matters including any disciplinary matters/malpractice.

F.5 Focus area of research

The research topics are broadly classified as given below. The applicant may be asked to indicate the choice of the research topics in the order of preference in the application form.

- 1. Theoretical Computer Science:** Algorithms, Concurrency, Formal Verification, and Graph Theory.
- 2. AI and Data Science:** Machine Learning (ML), Deep Learning (DL), Reinforcement Learning (RL), Stochastic Control and Optimisation, Bayesian Optimization, Text Mining, Speech and Audio Processing, Handwriting and Document Processing, ML for Cyber Physical Systems, Mining large data streams, ML for Cyber Security, Big Data Analytics, Distributed data processing.
- 3. Embedded systems and Computer Architecture:** Applications of Neural Network inference on edge devices, Reliability and Security of Autonomous Vehicles, Modelling and characterization of heterogeneous processors and Efficient Computer Architectures.
- 4. Computer/Communication Networks:** 5G/IoT Networks, AI Driven Networking, Network Virtualization, Network/Cyber Security, Blockchains, Software Defined Networks, Network Function Virtualization, Data Center Networking
- 5. High Performance Computing and Programming Languages:** Parallel Computing, Compilers and Translation Systems, Programming models and runtime systems.

In this call, applications are invited only for research areas (2)-(5). Only exceptional candidates will be considered for research areas (1). The applicant may be asked to indicate the choice of the research topics in the order of preference.

F.6 Syllabus – Computer Science and Engineering

- **Engineering Mathematics**
Discrete Mathematics: Propositional and first order logic. Sets, relations, functions, partial orders and lattices. Groups. Graphs: connectivity, matching, coloring. Combinatorics: counting, recurrence relations, generating functions. Linear Algebra: Matrices, determinants, system of linear equations, eigenvalues and eigenvectors, LU decomposition. Calculus: Limits, continuity and differentiability. Maxima and minima. Mean value theorem. Integration. Probability: Random variables. Uniform, normal, exponential, poisson and binomial distributions. Mean, median, mode and standard deviation. Conditional probability and Bayes theorem.
- **Digital Logic**
Boolean algebra. Combinational and sequential circuits. Minimization. Number representations and computer arithmetic (fixed and floating point).
- **Computer Organization and Architecture**
Machine instructions and addressing modes. ALU, data-path and control unit. Instruction pipelining. Memory hierarchy: cache, main memory and secondary storage; I/O interface (interrupt and DMA mode).
- **Programming and Data Structures**
Programming in C. Recursion. Arrays, stacks, queues, linked lists, trees, binary search trees, binary heaps, graphs.
- **Algorithms**
Searching, sorting, hashing. Asymptotic worst case time and space complexity. Algorithm design techniques: greedy, dynamic programming and divide-and-conquer. Graph search, minimum spanning trees, shortest paths.
- **Theory of Computation**
Regular expressions and finite automata. Context-free grammars and push-down automata. Regular and context-free languages, pumping lemma. Turing machines and undecidability.
- **Compiler Design**
Lexical analysis, parsing, syntax-directed translation. Runtime environments. Intermediate code generation.
- **Operating Systems**
Processes, threads, inter-process communication, concurrency and synchronization. Deadlock. CPU scheduling. Memory management and virtual memory. File systems.
- **Databases**
ER-model. Relational model: relational algebra, tuple calculus, SQL. Integrity constraints, normal forms. File organization, indexing (e.g., B and B+ trees). Transactions and concurrency control.
- **Computer Networks**
Concept of layering. LAN technologies (Ethernet). Flow and error control techniques, switching. IPv4/IPv6, routers and routing algorithms (distance vector, link state). TCP/UDP and sockets, congestion control. Application layer protocols (DNS, SMTP, POP, FTP, HTTP). Basics of Wi-Fi. Network security: authentication, basics of public key and private key cryptography, digital signatures and certificates, firewalls.

F.7 Department level contacts for admission process enquiries

For queries related to MS admissions, you can send an email to pgadmissions@iitdh.ac.in with the Subject ``Query related to MS Admissions for CSE``.

G. DEPARTMENT OF ELECTRICAL ENGINEERING

G.1 Eligibility for Admission

G.1.a General Criteria

1. B. Tech / B. E. in Electrical Engineering, Electronics and Communication Engineering, Electrical and Electronics Engineering, Instrumentation Engineering or any related stream.
2. A valid GATE score in relevant stream*

*Valid GATE score is essential for candidates applying in TA category (except for candidates who have B.Tech. or equivalent degree from IITs or BS degree from IISc with minimum CPI/CGPA of 8.0 on the scale of 10).

G.1.b Minimum score in the qualifying degree

For General/OBC category candidates and/or for candidates where no concession in academic performance is called for, the eligibility criteria in the qualifying degree (B.Tech./B.E.) is either:

1. a minimum of 60% marks (without round off) in aggregate over the entire duration of the undergraduate program.
2. a minimum Cumulative Grade Point Average (CGPA) or Cumulative Performance Index (CPI) of 6.0 on the scale of 0-10; with corresponding proportional requirements when the scales are other than on 0-10, (for example, 4.8 on a scale of 0-8).

For SC/ST/PwD category candidates, a relaxation of 5% in the performance at the qualifying degree is applicable.

Note that merely satisfying the eligibility conditions does not guarantee selection into the programme.

G.1.c Applicants who are in the final phase of getting qualifying degree

Students who are in the final phase of receiving above mentioned qualifying degree and who are likely to graduate before commencement of Spring 2021 semester of IIT Dharwad are also eligible to apply. However, if offered, the admission to those candidates would be provisional. To join an academic program at IIT Dharwad, such candidates need to furnish necessary documents regarding completion of the degree on the date of joining mentioned in the Section A above. They need to meet the criteria specified above considering updated score in the qualifying degree, in the meanwhile, the aggregate academic performance announced by the respective university till the last date for submission mentioned in section A should be used to determine eligibility for application and same to be reported in the online application.

G.2 Financial support category

The Department of Electrical Engineering admits candidates for full time M.S. Programme, under Teaching Assistantship (TA) and External (EX) schemes.

G.2.1. Teaching Assistantship (TA)

Funded by MHRD, the TAs are expected to assist in the academic/administrative work for smooth functioning of the Institute. Students under this category are entitled to financial support as per the MHRD norms.

1. The assistantship is payable for a maximum duration of two and half years or till the date of defence whichever is earlier.
2. To get the Teaching Assistantship stipend, the students concerned must assist in teaching, research and/or administrative work as assigned by the respective Academic Unit to the extent of 8 hours work per week.

3. The continuation of the assistantship will be subject to the satisfactory performance of the duties assigned by the Departments as well as satisfactory academic performance.
4. As per MHRD directives, the employees on the rolls (with or without pay) of any organization are not eligible for admission under this category. Candidates selected in this category have to resign from the current job and submit a relieving letter from their employer before joining the programme.

G.2.2 External (EX)

The candidates employed in recognized R&D organizations and desirous of pursuing M.S. programme while continuing in employment may apply for admission as external candidates. After fulfilling the coursework requirement at the Institute, these candidates will be allowed to register for M.S. with a Supervisor (internal) from the Institute and a Co-supervisor (external) from their parent organization where they will be doing the research work. The admissions are based on the following norms:

G.3 Modality of selection process

All the eligible candidates are invited for the first round of interviews via video conferencing. After the first round interviews, another shortlist will be announced for the second round of interviews. The shortlisted candidates will be asked to attend the second round of interview via video conferencing. Syllabus for the interview is given Section G.3.a of this document.

The interview slot (date and starting time) specific to each candidate will be communicated online at https://www.iitdh.ac.in/academics_ms.php.

Selection committee decision is final in all matters including any disciplinary matters/malpractice.

Dos and Don'ts

Dos:

1. Ensure that you have participated in a mock call session before the actual interview to set-right the audio-video set up.
2. Please plan to have at least 2 GB of data with you before the meeting. Also, try to locate yourself in a place with good internet speed (at least 1.5 Mbps) for a good quality video interaction. Laptops/tablets are preferred for video conferencing.
3. Accessing any technical resource (notes, book, internet, including peers or mentors) is not allowed during interview unless explicitly mentioned by the committee.
4. Have paper and pen/pencil handy.
5. Ensure that your equipment for video conferencing is charged to avoid power issues.
6. Ensure that the place from where you are attending the interview is conducive for effective interaction online.
7. Best practices while in online meetings:
 - Sign in to the online client 10-15 minutes ahead of scheduled meeting time and stay signed in
 - Turn your camera on and have your camera at your eye level
 - Make sure you sit in a well-lit and quiet place
 - Be mindful of what's going on behind you. Think about having a solid wall/nice curtain behind you or turning on the virtual background (if available).

Don'ts:

1. Avoid windy noisy surroundings during interview
2. Do not record interviews in any form. Any such act will be considered as violation of the pledge you signed online and may invite punitive action from IIT Dharwad.
3. Do not ask about the schedule of the results. It is better to use interview time for other better inquiries as the results will be declared online as soon as possible.
4. Do not leave your place in front of the camera for the entire duration of the interview.
5. Don't have anyone else around you. Any interaction with someone else other than the interview panel during the interview will be considered as a suspicious activity.

G.3.a Syllabus – Electrical Engineering

Engineering Mathematics: Linear Algebra: Matrix Algebra, Systems of linear equations, eigenvalues, and eigenvectors. Transform Theory: Fourier Transform, Laplace Transform.

Electric Circuits: KCL, KVL, Transient response of dc and ac networks, Sinusoidal steady-state analysis, filters, Ideal current and voltage sources, Thevenin's theorem, Norton's theorem, Superposition theorem, Maximum power transfer theorem, Three phase circuits, Power and power factor in ac circuits.

Signals and Systems: Representation of continuous and discrete-time signals, Shifting and scaling operations, Linear Time Invariant and Causal systems, Fourier series representation of continuous periodic signals.

Analog Electronics: Characteristics of diodes, transistors; Simple diode circuits; Amplifiers; Operational amplifiers: Characteristics and applications.

Control Systems: Basic control system components; Feedback principle; Transfer functions; root locus

Magnetic Circuits: Inductor; Transformers - Single phase transformer: equivalent circuit, phasor diagram, open circuit and short circuit tests, regulation and efficiency.

G.4 Department level contacts for admission process enquiries

Email ID(s) - pgadmissions_ee@iitdh.ac.in

H. APPENDIX A

Sponsorship Certificate for M.S. External Registration (EX)

(To be typed on letterhead of the Sponsoring Organization)

Name of the applicant:

Name of the sponsoring organization:

Address:

Present Designation of the applicant:

Present status of the applicant: (Permanent/Semi-permanent/Temporary)

Division where research work is proposed to be done:

Name of supervisor from the sponsoring organization:

(CV of supervisor is requested to be produced on the day of selection giving details of designation, qualification, research experience etc.)

Details of facilities relevant to the research problem which will be made available to the candidate by the organization.

Statement of proposed co-supervisor (external)

If Shri / Kum. / Smt. _____

is registered for the M.S. degree, I, _____

agree to act as his/ her research Co-supervisor along with the research Supervisor from IIT Dharwad.

Date:

Signature of proposed Co-supervisor (external)

=====*****=====

Statement of sponsoring authority

If Shri. / Kum./ Smt. _____

is admitted to the M.S. programme, we shall allow him/her to undergo the programme of studies at IIT Dharwad.

Further, we shall fully relieve him/her from normal duties to complete the residential course work requirement (and qualifier examination, if applicable) at IIT Dharwad.

During the period of M.S. studies, the candidate will be permitted to carry out his / her research work at our laboratories / organization and will be given the required facilities.

We also give our consent to _____ of our organization to be the Co-supervisor (external) of the M.S. thesis, along with a faculty member of IIT Dharwad as the Supervisor.

Date:

Signature and Seal of the Sponsoring Authority

=====*****=====