

Ph. D Admission (JAN 2019 Session)

List of Candidates shortlisted for Written Test /Interview to be held on 16.11.2018

Computer Science and Engineering

S.No	Application No	Name of Candidate	Mode Of Admission
1.	19010006	EBIN P M	Regular NHTRA
2.	19010013	ISUNURI B VENKATESWARLU	Regular HTRA
3.	19010018	DEVERASHETTI MOUNIKA	Regular HTRA
4.	19010021	MAHIMA SUSAN ABRAHAM	External
5.	19010046	SWETA SAGAR	Regular HTRA
6.	19010047	ANIRUDDHA MOHANTY	External
7.	19010092	LEKSHMI M	Regular HTRA
8.	19010112	PERINBA JOTHI	Regular HTRA
9.	19010117	PREMA K	External
10.	19010120	VENKATESAN N	Regular HTRA
11.	19010136	KAMATCHI A	Regular HTRA
12.	19010141	T KRISHNAN	Regular HTRA
13.	19010146	G STEPHANIE VIANNA	External
14.	19010148	KAVITHA D	Regular HTRA
15.	19010152	A ANITHA JOSEPHINE	External
16.	19010164	HARIKA DEVI KOTHA	External
17.	19010165	PAVETHRA M	Regular HTRA
18.	19010173	MANJU PRECILLAH M	Regular HTRA
19.	19010177	R SIVAKANI	Regular NHTRA
20.	19010183	P N KARTHIKAYAN	External
21.	19010186	SIVASANKARI K	Regular HTRA
22.	19010188	SRIJANEE MOOKHERJI	Regular HTRA
23.	19010195	YEDU KRISHNAN R	Regular HTRA
24.	19010196	RAMYAA A	Regular HTRA
25.	19010197	DEVIKIRUBA B	Regular HTRA
26.	19010198	D.RAMYA	External
27.	19010199	K.VIJAYALAKSHMI	External
28.	19010202	S.RAJIV	Regular NHTRA
29.	19010203	N.KEERTHIKA	External
30.	19010205	ANUSHA R	Regular HTRA
31.	19010218	RAVEENDIRAN	Regular HTRA
32.	19010226	KOHILA N P	Regular HTRA
33.	19010229	SHASHANK SRIVASTAVA	Regular HTRA
34.	19010247	ROHINI P	Regular HTRA
35.	19010275	LELLA KRANTHI KUMAR	Regular HTRA
36.	19010296	ANNIE JULIE JOSEPH	Regular HTRA
37.	19010298	MONIKA A	Regular NHTRA
38.	19010299	JOTHI LAKSHMI U	Regular HTRA
39.	19010302	ABINAYA	Regular HTRA
40.	19010303	P.ARIVUBRAKAN	External
41.	19010304	DEEPA J	External

42.	19010312	KARTHIKRAM.A	External
43.	19010316	AARIFAHAMED S	Regular HTRA
44.	19010319	P M ABHINAYA	External
45.	19010320	POTHURI SOWMYA SUDHA	Regular HTRA
46.	19010322	RANJITH R	External
47.	19010327	B.UMAMAHESWARI	External
48.	19010341	ASHOK KUMAR V	External
49.	19010351	SHREE PRAKASH	Regular HTRA
50.	19010355	GNANAMOZHI B	Regular HTRA
51.	19010356	ASHA ABRAHAM	External
52.	19010368	TUMU N V S PRAVEEN	Regular HTRA
53.	19010378	SHANMUGANATHAN V	Regular HTRA
54.	19010394	R.GAYATHRI	External
55.	19010407	K.VIJAYALAKSHMI	External
56.	19010408	C.BHUVANESHWARI	External

Instruction for Shortlisted candidates

- You are requested to report for Written Test cum Interview at 09.30AM on 16.11.2018 (Friday) in Indian Institute of Information Technology Design and Manufacturing Kancheepuram located at Melakottaiyur, Vandalur-Kelambakkam Road, Chennai-600127.
- **You are requested to produce the following certificates in Original along with one set of self attested copy of certificates at the time of Interview for verification:**
 - Diploma, Degree Certificates or Provisional Certificates from the Competent Authority of University or Institute concerned. In case of candidates whose results are awaited, producing the marksheets / grade cards will be sufficient. However if selected, they have to produce the certificate mentioned for verification at the time of Admission.
 - All Mark Statements / Grade Cards of qualifying Examinations.
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List of Subjects and their Syllabus for Entrance Exam

The following subjects are for Computer Science students:

- (i) Discrete Mathematics
- (ii) Data Structures and Algorithms
- (iii) C programming
- (iv) Computer Organization

The following subjects are for Electronics and Communication Engineering

- (i) Data communications or Digital Signal Processing
- (ii) Data Structures and Algorithms
- (iii) C programming
- (iv) Computer Organization

Note: One optional subject related to the research area.

Evaluation: If a student opts for the optional subject, then his/her performance will be assessed against 5 subjects, otherwise 4 subjects.

Syllabus

Discrete Mathematics: Logic, Sets, Relations, Functions, Graphs

Data structure and algorithms: Linear ADTs – Stacks, Queues, List, Priority Queue ADT - Heaps, Non-Linear ADTs – Trees and Graphs, Searching and Sorting

Computer Organization: Fixed point and floating point representation, Binary Arithmetic (addition, subtraction, multiplication, division), Cache memory

C programming: Input/Output statements, Selection (IF/Switch Case) and Repetition Statements (For/While loop).

Data communications: Introduction, Data and signals, Digital Transmission, Bandwidth utilization: Multiplexing and spreading, Transmission media, Switching, Error detection and correction, Multiple access, Ethernet, Logical addressing, Internet protocol, TCP, UDP.

Digital Signal Processing: Signals and Systems, transformations, filters, processor architectures, 2-D signal processing.

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Electrical & Electronics Engineering

S. No	Application No.	Name of Candidate	Mode Of Admission
1.	19010002	MERLIN SHARMILA A	Regular HTRA
2.	19010003	ABDUL SUBAHAN A	Regular HTRA
3.	19010004	NARASIMHULU THOTI	Regular HTRA
4.	19010012	NANDHA KISHORE S R	External
5.	19010017	ANAND R	External
6.	19010020	SURYA ANN THOMAS	Regular HTRA
7.	19010027	JENISH DEV	Regular HTRA
8.	19010031	ANINDYA BOSE	Regular HTRA
9.	19010034	PUJARI HARISH KUMAR	Regular HTRA
10.	19010038	M SURENDRANATHA REDDY	Regular HTRA
11.	19010048	PRAKASH CHANDRA JOSHUA C	Regular HTRA
12.	19010052	RAMESH	Regular HTRA
13.	19010066	MADHU RAJ KUMAR	Regular HTRA
14.	19010068	RAMESH MONDEDDULA	Regular HTRA
15.	19010076	NIVEDITHA N	Regular HTRA
16.	19010078	MUKKU PAVAN KUMAR	Regular HTRA
17.	19010079	SASIKALA P	Regular HTRA
18.	19010093	SHERIN A THOMAS	Regular HTRA
19.	19010102	ANISH JOY A	Regular HTRA
20.	19010105	NEETHU KRISHNAN	Regular HTRA
21.	19010110	KANNAN K	Regular HTRA
22.	19010114	PONMANI RAJA M	Regular HTRA
23.	19010116	PRAVEEN KUMAR	Regular HTRA
24.	19010119	SRIDHAR C	Regular HTRA
25.	19010121	LALITHA K	External
26.	19010129	SANDEEP PANUGANTI	Regular HTRA
27.	19010132	VAKKALAKULA BHARATH SREENIVASULU	Regular HTRA
28.	19010137	ANDE BHARGAV	External
29.	19010138	RON CARTER S B	External
30.	19010140	M SIVALINGAMAIAH	Regular HTRA
31.	19010147	KASETTY PRAVEENKUMAR	Regular HTRA
32.	19010170	NITESH K A	Regular HTRA
33.	19010178	D ANITHA	Regular HTRA
34.	19010180	MODUGULA GOPINATHREDDY	Regular HTRA

35.	19010182	PRAMOD KUMAR MORYA	Regular HTRA
36.	19010184	RIGVENDRA KUMAR VARDHAN	Regular HTRA
37.	19010187	GOWTHAMI A	Regular HTRA
38.	19010192	ANISHA NATARAJAN	Regular HTRA
39.	19010201	UGANYA G	Regular HTRA
40.	19010206	GADE CHANDRA SEK HAR REDDY	Regular HTRA
41.	19010210	AMBILY VIJAYAKUMAR	Regular HTRA
42.	19010212	AASHISH NAIR	Regular HTRA
43.	19010217	G KATHIRAVAN	Regular HTRA
44.	19010224	SHAIK BENARJEE	Regular HTRA
45.	19010234	PRADEEP G	Regular HTRA
46.	19010236	PUNITH KUMAR YANAGANDULA	Regular HTRA
47.	19010237	SOWMIYA	Regular HTRA
48.	19010242	SUMY MANUEL	External
49.	19010253	MAHARAJA B	Regular HTRA
50.	19010254	K SRIDHARAN	Regular HTRA
51.	19010259	PANDIYAN.R	Regular HTRA
52.	19010261	KAVITHA T	Regular HTRA
53.	19010262	VERGIN SHEEBA E	Regular HTRA
54.	19010266	BIBEKANANDA JENA	External
55.	19010267	P SAKTHISHUNMUGASUNDARAM	Regular NHTRA
56.	19010269	N.HARI BASKAR	Regular NHTRA
57.	19010277	ARUNKUMAR	Regular HTRA
58.	19010282	N.S.SATHYAVATHI	Regular HTRA
59.	19010286	MADDULURI ANANTH BHARADWAJ	Regular HTRA
60.	19010287	SIVA RAMA KRISHNA GORLA	Regular HTRA
61.	19010288	KARTHIKEYAN V	Regular HTRA
62.	19010294	VIVEK KAJAGAR	Regular HTRA
63.	19010295	KAVI PRIYA M	Regular HTRA
64.	19010324	UDHAYANAN S	Regular HTRA
65.	19010329	MURALI KRISHNA A G	Regular HTRA
66.	19010332	MEENA A	Regular HTRA
67.	19010333	VENKATA SRIKANTH BURRA	Regular HTRA
68.	19010334	P.PAVITHRA	Regular HTRA
69.	19010343	SAHAYA PONREKHA A	External
70.	19010352	SATHYABHAMA B	Regular HTRA
71.	19010361	RAGUL S	Regular HTRA
72.	19010370	MANVENDRA SINGH CHAUHAN	Regular HTRA
73.	19010380	LAKSHMI GANESH K	Regular HTRA
74.	19010383	G R MAHENDRA BABU	Regular HTRA
75.	19010386	KOMMANDURI SRINIVAS	Regular HTRA
76.	19010388	AKSHYA S	Regular HTRA

77.	19010390	REVATHI.S	Regular HTRA
78.	19010395	SATHEESWARAN C	Regular HTRA
79.	19010397	C.V.UMAMAHESWARI	Regular NHTRA
80.	19010409	PARTHASARATHY P	Regular HTRA
81.	19010410	RAMAKRISHNA GURAJALA	Regular HTRA
82.	19010411	MAYANK KUMAR SINGH	Regular HTRA
83.	19010415	THANGA GURUSAMY B	Regular HTRA
84.	19010416	ANTONY PRAKASH	Regular HTRA
85.	19010422	VODUGU MATTHEW	Regular HTRA

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Ph.D. Written Test Syllabus

Important Note:

1. The candidate can choose the research area based on educational background.
2. There will be two evaluation parts: (i) Written test (ii) Interview
3. The time duration for written test will be **one hour**.
4. The total marks for written test will be **50**.
5. The written test generally begins **at 9.30 AM** in the **Academic Complex Ground floor** of the IITDM Kancheepuram Campus.

Research Groups	Syllabus
EE1 : Communications/Networking/Signal Processing * (*Candidate can choose either Paper-1 or Paper-2)	Communication/Networking: Paper - 1 <ul style="list-style-type: none">• Basics Concepts of Probability Theory• Basics Concepts of Wireless Communication• Analog and Digital Communication Signal Processing: Paper - 2 <ul style="list-style-type: none">• Review of Signals and systems• Sampling Theorem and Discrete-Time LTI Systems• Z-Transform• Discrete Fourier transform• Fast Fourier Transform• FIR and IIR Filters• Design of Digital Filters• Adaptive Filtering Algorithms

<p>EE2: Microelectronics / VLSI / MEMS</p>	<p>Microelectronic Circuits: Diodes and applications, MOSFET and BJT amplifier circuits, Ideal Op amp, arithmetic circuits and other applications using Op amp. Boolean Algebra, Combinational circuit design, Sequential circuit design, Arithmetic circuits design, Memory design, CMOS Inverter, DC and Transfer characteristics, propagation delay, power dissipation.</p>
<p>EE3: Power Electronics/Controls *</p> <p>(*Candidate can choose either Paper-1 or Paper-2)</p>	<p>Paper-1 Operation of Buck, Boost and Buck-boost converters, Power semiconductor devices and characteristics, Operation of inverters – 180 degree mode and SPWM operation – single phase and three phase, AC to DC bridge converters – single and three phase. Fourier series and Laplace transforms, DC, Single phase and three phase AC Circuit Analysis and Network Theorems. Theory and operation of DC machines, Induction machines and PM synchronous machines (BLDC and PMSM). Electric Drives – Power electronic control of DC & Induction machines. Transfer function, transient and steady state response, Routh-Hurwitz, Bode plots, Root loci, Stability analysis, P, PI and PID controllers, State space model, State transition matrix, eigen values. Time and frequency domain analysis.</p> <p>Paper -2 Transfer function, transient and steady state response, Routh-Hurwitz, Bode plots, Root loci, Stability analysis, P, PI and PID controllers, State space model, State transition matrix, eigen values. Time and frequency domain analysis, Controllability, Observability, Stability and pole-placement. Fourier series and Laplace transforms, D C, Single phase and three phase AC Circuit Analysis and Network Theorems, Electrical and Electronic Measurements: Static and dynamic characteristics of Measurement Systems. Bridges and potentiometers, measurement of R, L and C. Measurements of voltage, current, power, power factor and energy. Time, phase and frequency measurements. Resistive, Capacitive, Inductive and piezoelectric transducers and their signal conditioning. Measurement of displacement, velocity and acceleration (translational and rotational), force, torque, vibration and shock. Measurement of pressure, flow, temperature and liquid level. Measurement of pH, conductivity, viscosity and humidity.</p>

EE4: RF	Vector algebra, Electromagnetic theory-transmission lines-impedance matching-smith chart operations-scattering parameters-network parameters-antenna basics.

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Physics

S. No	App. No.	Name of Candidate	Mode Of Admission
1	19010058	SINU KURIAN	Regular HTRA
2	19010113	HEMALATHA V	Regular HTRA
3	19010280	ROHIT KUMAR	Regular HTRA
4	19010088	UMA N N	Regular HTRA
5	19010379	MOHAMMED SALMAN P	Regular HTRA
6	19010391	AKSHYA S	Regular HTRA
7	19010392	SATHYA S	Regular HTRA

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Mathematics

S.No	Application No	Name of Candidate	Mode Of Admission
1.	19010122	SANGEETHA K V	Regular HTRA

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SYLLABUS FOR PH.D CANDIDATES MATHEMATICS

Real Analysis: Sequences and series, convergence. Continuity, uniform continuity, differentiability, mean value theorem. Sequences and series of functions, uniform convergence. Riemann sums and Riemann integral.

Complex Analysis: Cauchy-Riemann equations, analytic functions, harmonic functions. Conformal mappings, Mobius transformations. Contour integrals, Cauchy Integral formula. Taylor's series, singularities, Laurent's series. Residues, Cauchy Residue theorem.

Linear Algebra: Vector spaces, algebra of linear transformations. Algebra of matrices, rank and determinant of matrices. Eigenvalues and eigenvectors. Matrix representation of linear transformations. Inner product spaces, orthonormal basis, Gram-Schmidt orthogonalization.

Algebra: Groups, subgroups, normal subgroups, quotient groups, homomorphisms, cyclic groups, permutation groups. Rings, ideals, prime and maximal ideals, quotient rings, Euclidean domain. Polynomial rings and irreducibility criteria. Fields, finite fields, field extensions.

Ordinary Differential Equations: Solution methods for ordinary first order differential equations. General theory of homogenous and non-homogeneous linear ordinary differential equations, variation of parameters, power series methods.

Graph Theory and Combinatorics: Permutations, combinations, pigeon-hole principle, inclusion-exclusion principle. Graphs, Euler and Hamilton graphs, Trees and other special families of graphs. Matching, independent set, coloring, graph isomorphism.

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Mechanical Engineering

S.No	Application No	Name of Candidate	Mode Of Admission
1.	19010030	DIVAKAR S	Regular HTRA
2.	19010036	G GANGARAJU	Regular HTRA
3.	19010053	RAJALINGAM A	Regular HTRA
4.	19010056	K C CHARAN	Regular HTRA
5.	19010015	DHANAPAL S	Regular HTRA
6.	19010125	SANKARGANESH P	Regular HTRA
7.	19010128	PRABAKARAN S	Regular HTRA
8.	19010142	PALANISAMY C	Regular HTRA
9.	19010072	VIGNESH R	Regular HTRA
10.	19010149	UNNIKRISHNAN K S	Regular HTRA
11.	19010154	RAJESHSHYAM R	Regular HTRA
12.	19010185	DINESH KUMAR S	Regular HTRA
13.	19010179	PUTTA RAMUDU	Regular HTRA
14.	19010193	RAHUL KRISHNA H	Regular HTRA
15.	19010077	RAGHULNATH D	Regular HTRA
16.	19010216	VAISHNU Y P	Regular HTRA
17.	19010230	MANNELI TALPAGIRI	Regular HTRA
18.	19010151	A L ABISHEK	Regular HTRA
19.	19010246	MOHANASARAVANAN P S	Regular HTRA
20.	19010274	ANITHA D	Regular HTRA
21.	19010135	SARAVANAN S	Regular HTRA
22.	19010285	ANANTHAN D THAMPI	Regular HTRA
23.	19010270	ASARUDHEEN A	Regular HTRA
24.	19010297	MADHAVAN D	Regular HTRA
25.	19010306	ASSARUDEEN H	Regular HTRA
26.	19010278	VIMAL V R	Regular HTRA
27.	19010325	VENKATESAN S	Regular HTRA
28.	19010256	VENUGOPAL B	Regular HTRA
29.	19010348	SAKTHIVADIVELAN K	Regular HTRA
30.	19010365	SHAJU N S	Regular HTRA
31.	19010377	MOHAMED FAIZAL S M	Regular HTRA
32.	19010381	SANGEETHAKRISHNAN S	Regular HTRA
33.	19010300	ARUNAGIRI A	Regular HTRA
34.	19010009	SARAVANAN M K	Regular HTRA
35.	19010338	KALAISELVAN K	Regular HTRA
36.	19010345	RAMKUMAR G	External

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Syllabus for Mechanical Engineering

Written test (Duration - 2 hours)

Part I – Basic Engineering Sciences - 50 marks - 1 hour **(Compulsory for all)**

Part II - 50 marks – 1 hour (Any one of the following Parts)

Part II A – Engineering Design

Part II B – Materials and Manufacturing Processes

Part II C – Thermal Engineering

Part I – Basic Engineering Sciences (Common to all)

Engineering Mathematics: Fundamentals of Linear algebra, Calculus, Differential equations, Probability and Statistics, and Numerical methods.

Engineering Graphics: Plane curves, projection of lines, planes and solids, section and development of solids, and isometric projection.

Engineering Mechanics: Free body diagram, equilibrium of particles and rigid bodies, friction, centroid, virtual work, kinematics and dynamics of particles and of rigid bodies in plane motion.

Part II A – Engineering Design

Mechanics of materials: Theory of pure bending moment and torsion, deflection of beams, Euler theory of long columns, design of thin and thick pressure vessels, principal stress strain, combined bending and torsion, application of failure theories in design, design of mechanical components such as shafts, gears, cams and followers, design of mechanical joints and drives, application of fits and tolerances in design.

Kinematics and dynamics of machines and mechanisms: position-velocity-acceleration analysis, classification of robots and mechanisms, mapping and transformations in robotics, differential motion-Jacobian-trajectory analysis, design of robot mechanisms for various applications.

Part II B – Materials and Manufacturing Process

Engineering Materials: Structure and properties of engineering materials, phase diagrams, heat treatment, stress-strain diagrams for engineering materials.

Machining and Machine Tool Operations: Mechanics of machining; basic machine tools; single and multi-point cutting tools, tool geometry and materials, tool life and wear; economics of machining; principles of non-traditional machining processes; principles of work holding, design of jigs and fixtures.

Metrology and Inspection: Limits, fits and tolerances; linear and angular measurements; comparators; gauge design; interferometry; form and finish measurement; alignment and testing methods; tolerance analysis in manufacturing and assembly.

Part II C – Thermal Engineering

Heat-Transfer: Modes of heat transfer; one dimensional heat conduction, resistance concept and electrical analogy, heat transfer through fins; unsteady heat conduction, lumped parameter system, Heisler's charts; thermal boundary layer, dimensionless parameters in free and forced convective heat transfer, heat transfer correlations for flow over flat plates and through pipes, effect of turbulence; heat exchanger performance, LMTD and NTU methods; radiative heat transfer, Stefan Boltzmann law, Wien's displacement law, black and grey surfaces, view factors, radiation network analysis.

Thermodynamics: Thermodynamic systems and processes; properties of pure substances, behavior of ideal and real gases; Zeroth and first laws of thermodynamics, calculation of work and heat in various processes; second law of thermodynamics; thermodynamic property charts and tables, availability and irreversibility; thermodynamic relations.

Fluid Mechanics: Fluid properties; fluid statics, manometry, buoyancy, forces on submerged bodies, stability of floating bodies; control-volume analysis of mass, momentum and energy; fluid acceleration; differential equations of continuity and momentum; Bernoulli's equation; dimensional analysis; viscous flow of incompressible fluids, boundary layer, elementary turbulent flow, flow through pipes, head losses in pipes, bends and fittings.