



DADI INSTITUTE OF ENGINEERING & TECHNOLOGY

(Approved by A.I.C.T.E., New Delhi & Permanently Affiliated to JNTUK, Kakinada)

NAAC Accredited Institute and Inclusion under Section 2(f) of UGC Act

An ISO 9001:2008; ISO 14001:2004 & OHSAS 18001:2007 Certified Institution

NH-16, Anakapalle - 531002, Visakhapatnam, A.P.

Mobile: +91 9963981111, Website: www.diet.edu.in, E-mail: info@diet.edu.in

Academic year: 2020-21

Anakapalle,
Dt: 06-08-2020

From,
Mr .KJogi Naidu,
HOD - ECE,
Dadi Institute of Engineering & Technology.

(Through Proper Channel)

To,
The Principal,
Dadi Institute of Engineering & Technology.

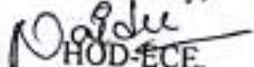
Sir,
Sub: Permission for Conduction of GATE Classes for IV-I B.Tech ECE Students- Reg

With due respect , here by stating that, I, on behalf of ECE Department request you for conduction of GATE Classes for our ECE IV-I B.Tech students who are under eligible criteria and are also interested. The GATE Class work schedule is planned for 3 hours on every Saturday without hindering the regular classwork, the time table schedule will be shared a week prior to commencement of IV-I Regular class work.

We, therefore, hope that you would be kind enough to permit us to conduct the GATE Classes. Kindly grant us the permission. Awaiting anxiously for your reply.

Thanking you Sir,

Yours Sincerely,


HOD-ECE,
DIET

Head of the Department
Electronics & Communication
Dadi Institute of Engg & Tech
Anakapalle - 531002



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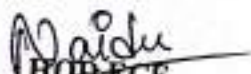
CIRCULAR

DATE:13/08/2020

This is to inform all the IV-I B.Tech ECE Students that the Department of ECE is Conducting GATE Classes for interested and eligible students on every Saturday from the day of beginning of your IV-I Class work. So students of IV-I B.Tech ECE are instructed to kindly make the best use of this opportunity. The subject schedule and time table will be shared accordingly.

HAPPY LEARNING & ALL THE VERY BEST!!

Venue: LH-29


HOD-ECE

Head of the Department
Electronics & Communication Eng
Dadi Institute of Engg. & Tech
Anakapalle - 531002


PRINCIPAL

PRINCIPAL
Dadi Institute of
Engineering & Technology
ANAKAPALLE - 531 002



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NAAC Accredited Institute

An ISO 9001:2008, 14001:2004 & OHSAS 18001:2007 Certified Institute

NH-5, Anakapalle, Visakhapatnam-531002, Andhra Pradesh

w.e.f: 22-08-2020

Dept. Name - ECE Course / Year / Sem - B.Tech/IV/I Section: B Academic Year - 2020-21
Class Teacher - Mr.M.Sunel Kumar Total Strength- 47 Lecture Hall -

Day/Time	9-9.50	9.50-10.40	10.40-11	11-11.50	11.50-12.40	12.40-1.30	1.30-2.20	2.20-3.10	3.10-4.00
Monday	DIP	CN	B	OC	ESS	L		DSP/MWE LAB	
Tuesday	OC	ES	R	CN	RS	U		WORK FORCE	
Wednesday	CN	ES	E	DIP	RS	N		WORK FORCE	
Thursday	OC	ES	A	DIP	ESS	C		WORK FORCE	
Friday	CN	ESS	K	ES	DIP	H		WORK FORCE	
Saturday	ESS	LAB						RS	OC
									RS

S.No	Sub.Code	Subject Name	Faculty name	No: Of Periods
1	RS	Radar Systems	Mrs. K Madhavi	4
2	DIP	Digital Image Processing	Mr.S.Balaji	4
3	CN	Computer Networks	Mrs.G Sujatha	4
4	OC	Optical Communications	Mrs.Karchana	4
5	ESS	Electronic Switching Systems	Mr.K Soma Sekhar	4
6	ES	Embedded Systems	Mrs.Laxmi Yeneti	4
7	GATE	GATE Classes		3

LABORATORY				
S.No	MWE	Subject Name	Faculty name	No: Of Periods
1	MWE	Microwave Engineering Lab	Mr.KSNV Someshwara Rao/Mrs. K Madhavi	3
2	DSP	Digital Signal Processing Lab	Mrs.DLMythri/Mr.S.Balaji	3

(Signature)

Head of the Department
Electronics & Communication Engg
Dadi Institute of Engg & Tech
Anakapalle 531 002

(Signature)
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DEPARTMENT OF ECE GATE HANDLING FACULTY- 2020-21

S.NO	SUBJECT	FACULTY
1	Network Analysis	R.Suneel Kumar
2	Digital Electronics	D.Ravi Nayak
3	Signal and Systems	k.Jagan Mohan panigrahi
4	Control Systems	M.Kishore Kumar
5	Communication Systems	K.Someswara Rao
6	Analog Electronics	K.Jogi Naidu
7	Electronic Devices and Circuits	P.Poorna Priya
8	Electromagnetic Theory	M.Kasiyammal

Naidu
HOD ECE

Head of the Department
Electronics & Communication
Dadi Institute of Engg & Tech
Anakapalle - 531 002

Chand
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ANAKAPALLE - 531 002


Sl No.	Date	Time	No. of Periods engaged	Topic Covered	REMARKS
				<u>Network Theory</u>	
1.	22/8/21		3	Basic Concepts of network theory, Transient Analysis.	
2.	29/8/21		3	Two port networks, sinusoidal state analysis, Phasor locus diagram & complex power.	
3.	12/9/21		3	Resonance, Network functions & filter, Graph theory.	
				<u>Digital Electronics</u>	
4.	19/9/21		3	Boolean Algebra, Number Systems, Logic gates.	
5.	26/9/21		3	K-Maps, Combinational Logic Design, Sequential circuits, ADC, DAC.	
6.	03/10/21		3	Microprocessors, Machine instructions & addressing modes. Instructions pipelining	
				<u>Signal & systems</u>	
7.	10/10/21		3	Classifications & types of signals, Fourier Representation of periodic & Aperiodic signals	
8.	24/10/21		3	Fourier transforms, DTFT, DFT, FTs of standard signals.	
9.	31/10/21		3	Laplace transform, z transform of all standard signals. Partial Fraction method,	

Dadi

Sl. No.	Date	Time	No of Periods engaged	Topic Covered	REMARKS
10.	7/11/21		3	<u>Control Systems</u> Block diagrams & signal flow graph, time response analysis.	
11.	14/11/21		3	Root locus, stability criteria, Nyquist stability criteria, Polar plots,	
12.	21/11/21		3	Bode plots, Freq response of second order system, controllers compensators.	
				<u>Communication System</u>	
13.	28/11/21		3	Noise in Analog Communication Random Variables & Random process.	
14.	05/12/21		3	Noise in digital Communication, Information theory & coding	
				<u>Analog Electronics</u>	
15.	12/12/21		3	Diode Applications, BJT, Biasing, Regions of Operation, Small signal analysis	Notes
16.	19/12/21		3	Freq. response of BJT analysis MOSFET biasing, Operational Amplifiers, Feedback amplifiers.	
17.	26/12/21		3	Active filters, current mirrors, & differential amplifiers oscillator circuits, RC, Hartley, Colpitts.	

Sl. No.	Date	Time	No of Periods engaged	Topic Covered	REMARKS
				<u>Electronic Devices & Circuits</u>	
18	02/01/22		3	Semiconductor Physics introduction, PN Junction diode, Introduction to FET.	
19	09/01/22		3	JFET, MOSFET, special purpose diodes.	
				<u>Electromagnetic theory</u>	
20	23/01/22		3	Fundamentals, Transmission lines, s-parameters, Antenna & Radiation pattern, Metallic waveguide	

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Department of ECE

FEEDBACK FORM

ON

GATE 2020-21

1. Did the GATE Schedule attained its objectives

- Yes
- No

2. GATE Training was relevant to my needs

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

3. Instructions were clear and understandable

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

4. Content was well organised

- Strongly agree
- Agree
- Neutral

5. Was the Duration of the training sufficient.

- Yes
- No

6. Resource persons were effective.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

7. Queries were encouraged

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

8. Any additional remarks

9. Overall how would you rate this schedule.

- Excellent
- Very good
- Good
- Fair
- Poor



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Department of ECE

GATE Syllabus for ECE – General Aptitude

- Verbal Ability:
 - Instructions,
 - English grammar,
 - Verbal deduction,
 - Word groups
 - Sentence completion,
 - Critical reasoning
 - Verbal analogies.
- Numerical Ability
 - Numerical reasoning
 - Numerical computation,
 - Data interpretation, and
 - Numerical estimation.

GATE ECE Syllabus for Engineering Mathematics

Vector Analysis: Gradient, Vectors in plane and space, Divergence and curl, Vector operations, Green's, Gauss's, and Stoke's theorems. Linear Algebra: Matrix algebra, Vector space, Eigen-values & eigen vectors, Basis, Rank, solution of linear equations: Existence, and Uniqueness. Linear dependence and independence,

Probability and Statistics:

- Mean, median, mode and standard deviation,
- Combinatorial probability,

- Joint and conditional probability,
- probability distribution functions:
 - Binomial,
 - Exponential,
 - Poisson, and
 - Normal.

Calculus:

- Maxima and minima,
- Mean value theorems,
- Taylor series,
- Theorems of integral calculus,
- Multiple integrals,
- Evaluation of definite and improper integrals,
- Surface and volume integrals,
- Partial derivatives,
- Line.

Complex Analysis:

- Cauchy's integral formula,
- Analytic functions,
- Residue theorem,
- Cauchy's integral theorem,
- Taylor's and Laurent's series.

Differential Equations:

- Particular integral & Complementary function,
- First order equations (nonlinear and linear),
- Initial & boundary value problems,
- Higher order linear differential equations,
- Partial differential equations,
- Cauchy's & Euler's equations,
- Variable separable method,
- Methods of solution using the variation of parameters.

Numerical Methods:

- Single & Multi-step methods for differential equations,
- Convergence criteria,
- Solution of nonlinear equations.

GAE Syllabus for ECE – Networks, Signals and Systems

- Network solution methods:
 - Solution of network equations using Laplace transform,

- Nodal and mesh analysis,
- State equations for networks,
- Time domain analysis of simple linear circuits,
- Network theorems:
 - Superposition,
 - Maximum power transfer
 - Thevenin and Norton's.
- Frequency domain analysis of RLC circuits,
- Wye-Delta transformation,
- Linear 2-port network parameters:
 - Driving point and
 - Transfer functions.
- Steady state sinusoidal analysis using phasors.

Continuous-time signals:

- Discrete-time signals: Z-transform, Discrete-time Fourier transform (DTFT), Interpolation of discrete-time signals, FFT, DFT.

Fourier series and Fourier transform representations,

LTI systems:

- Poles and zeros,
- Definition and properties,
- Digital filter design techniques,
- Causality,
- Parallel and cascade structure,
- Stability,
- Phase delay,
- Impulse response,
- Frequency response,.

Syllabus of GATE ECE 2020 – Electronic Devices

- BJT,
- Energy bands in intrinsic & extrinsic silicon,
- Integrated circuit fabrication process:
 - Ion implantation,
 - Oxidation,
 - Photolithography & twin-tub CMOS process,
 - Diffusion. Carrier transport:

- Resistivity,
- Diffusion current,
- Mobility, and
- Drift current.

MOS capacitor,
 Generation and recombination of carriers,
 Photo diode and Solar cell,
 Poisson and continuity equations,
 MOSFET,
 P-N junction,
 LED
 Zener diode.

GATE 2020 Syllabus for ECE – Analog Circuits

- Active filters,
- Small signal equivalent circuits of diodes,
- Power supplies:
 - Ripple removal, and
 - Regulation.
 BJTs and MOSFETs,
 Sinusoidal oscillators:
 - Criterion for oscillation,
 - Single-transistor & op-amp configurations.
- Simple diode circuits:
 - Clamping,
 - Clipping, and
 - Rectifiers
 Voltage reference circuits,
 Single-stage BJT and MOSFET amplifiers:
 - Biasing,
 - Mid-frequency small signal analysis,
 - Bias stability, and
 - Frequency response.
 Function generators,
 BJT and MOSFET amplifiers:
 - Multi-stage,
 - Differential,

- Feedback,
- Power & operational.

Wave-shaping circuits and 555 timers, Simple op-amp circuits.

GATE 2020 ECE Syllabus – Digital Circuits

- Data converters:
 - ADCs and DACs,
 - Sample & hold circuits.

Number systems,

8-bit microprocessor (8085):

- Programming,
- Architecture,
- Memory and I/O interfacing.

Combinatorial circuits:

- Code converters,
- Boolean algebra,
- Decoders and PLAs,

- Arithmetic circuits,
- Minimization of functions using Karnaugh map & Boolean identities,
- Multiplexers,
- Logic gates & their static CMOS implementations.

Semiconductor memories:

- ROM,
- DRAM,
- SRAM.

Sequential circuits:

- Shift-registers,
- Latches & flip-flops,
- Finite state machines,
- Counters.

GATE Exam Syllabus ECE 2020 – Control Systems

- Transient & steady-state analysis of LTI systems,
- Basic control system components,
- Lag, lead & lag-lead compensation,

- Frequency response,
- Feedback principle,
- Bode and root-locus plots,
- State variable model,
- Transfer function,
- Solution of state equation of LTI systems,
- Block diagram representation,
- Routh-Hurwitz and Nyquist stability criteria,
- Signal flow graph.

GATE Syllabus for ECE 2020 – Communication

- Fundamentals of error correction,
- Random processes:
 - Autocorrelation & power spectral density,
 - Filtering of random signals through LTI systems,
 - Properties of white noise.

Basics of

- TDMA,
- CDM

- FDMA.

Analog communications:

- Superheterodyne receivers,
- Amplitude modulation & demodulation,
- Circuits for analog communications,
- Angle modulation & demodulation,
- Spectra of AM and FM.

Hamming codes,

Information theory:

- Entropy

- Channel capacity theorem,
- Mutual information.

Inter-symbol interference and its mitigation,

Digital communications:

- Phase and frequency shift keying (PSK, ASK, FSK),
- PCM,
- SNR and BER for digital modulation,
- DPCM,

- QAM, MAP and ML decoding,
 - Digital modulation schemes,
 - Calculation of bandwidth,
 - Amplitude,
 - Matched filter receiver.
- Timing & frequency synchronization.

GATE 2020 Syllabus ECE – Electromagnetics

- Waveguides:
 - Cut-off frequencies,
 - Modes,
 - Dispersion relations,
 - Boundary conditions.

Electrostatics,

Light propagation in optical fibers,

Maxwell's equations:

- Wave equation,
- Differential & integral forms and their interpretation,
- Poynting vector,
- Boundary conditions.

Antennas:

- Return loss,
- Antenna types,
- Gain and directivity,
- Antenna arrays,
- Radiation pattern.

Plane waves and properties:

- propagation through various media,
- Reflection and refraction,
- Phase and group velocity,
- Skin depth,
- Polarization.

Basics of radar,

Transmission lines:

- Impedance transformation,
- Equations.

- S-parameters,
- Characteristic impedance,
- Smith chart,
- Impedance matching.



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DETAILED REPORT ON CONDUCTION OF GATE CLASSES(2020-21)

GATE exam has gained a lot of Importance as students who qualify GATE are eligible for direct recruitment in PSUs like BPCL, ONGC, BARC, NTPC, NPCIL, GAIL, BHEL, DRDO, IOCL, NALCO, CtC.HOD ECE visited all the final year ECE classes and highlighted the importance of GATE exam for PSUs as well as higher studies. This improved the enrolment ratio from around 45% in year 2018-19 to around 72% in consecutive years. GATE (2020-21) Classes have been handled for IV ECE Students from 22/08/2020 for 2017 admitted batch students and 8 Subjects have been handled by different faculty as stated In the list and they covered the topics from previous gate papers. Training of 60 hrs along with 4 to 5 mock test is scheduled for students appearing GATE 2020. The students participating in GATE Training were also provided with the entire set of notes consisting of Important topics and useful for further preparation.

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Academic year: 2017-18

From,
R.V.S Lakshmi Kumari
HOD-EEE,
Dadi Institute of Engineering & Technology.

Anakapalle,
Dt: 09-08-2017

(Through Proper Channel)

To,

The Principal,
Dadi Institute of Engineering & Technology.

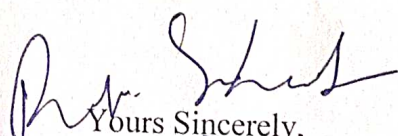
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We, therefore, hope that you would be kind enough to permit us to conduct the GATE Classes. Kindly grant us the permission. Awaiting anxiously for your reply.

Thanking you Sir,


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CIRCULAR

DATE:17/08/2017

All the students of IV year B.Tech students here by informed that the GATE notification had been released on 09TH August 2017. The exam will be in February 2018 through online mode. The last date for applying GATE exam is 17th Nov 2017. The EEE department is going to conduct gate classes from 22nd November 2017. So students of IV-I B.Tech EEE are instructed to kindly make the best use of this opportunity. The subject schedule and timetable will be shared accordingly.

HAPPY LEARNING & ALL THE VERY BEST!!

Venue: LH-37


R. V. S. S. S. S.
HOD EEE

Head of the Department
Electrical & Electronics Engg.
Dadi Institute of Engg. & Tech.
Anakapalle - 531002


M. Venkatesh
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	9:00 09:50	09:50- 10:40	BR	10:50 - 11:40	11:40 12:30	LUNCH	1:00 - 1:50	1:50 - 2:40	2:40 - 3:30	3:30-4:15
MON	HVAC/D C	EDS		PSOC	HVA C/DC		Project	PSOC	RES	GATE
TUE	HVAC/D C	(Simulation /MPMC)			PSOC		RES	INST	GATE	
WED	RES	(PSLAB /MPMC)			EDS		RES	INST	GATE	
THU	PSOC	EDS	EAK	HVAC /DC	EDS		INST	RES	INST	SPORTS
FRI	INST	HVAC/ DC		RES	INST		GATE	PSOC	EDS	LIB
SAT	HVAC	PSOC		HVAC	EDS		RES (Reme dial)	(Simulation /PS LAB)		

S.No	Sub Code	Subject Name	No of Perio ds	Name of the faculty
THEORY				
1	RES	Renewable energy sources	6	Ms.GPrasoon
2	HVAC &DC	High voltage AC/DC	7	Mr.DVNaNanth
3	PSOC	Power System operation &controll	6	Mr. M Raja Rao
4	INS	Instrementation	6	Mrs.AL Durga
5	EDS	Electrical Distribution systems	6	Mr.MRajendra Prasad
6		Gate classes	3	

Total theory hours - 31

Total Lab hours - 9

Sports - 1

R.V. Sharma
Head of the Department
Department of Electronics Engg.
Dadi Institute of Engg. & Technology
NH-5, Anakapalle - 531002

- 1

M. Venkatesh
PRINCIPAL
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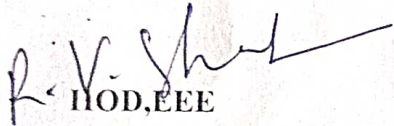
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DEPARTMENT OF EEE GATE HANDLING FACULTY-2017-18

S.NO.	SUBJECT	FACULTY
1	Network Analysis	M.Rajarao
2	Digital Electronics	G.Jagadeesh
3	Signal and Systems	B.N.Srinivasarao
4	Control Systems	K.vijayakumar
5	Power systems	A.Lakshmidurga
6	Electrical machines	CH.Nookesh
7	Electrical measurements	CH.Ravikumar
8	Power electronics	J.Dileepkumar


HOD, EEE

Head of the Department
Electrical & Electronics Engg.
Dadi Institute of Engg. & Tech.
Anakapalle - 531 002


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Sl. No.	Date	No. of Periods engaged	Topic Covered	REMARKS
①	27/11/17	03	Basics of DC Machines	
②	30/11/17	03	Introduction to Electrical Circuits.	
③	1/12/17	01	Introduction to Measurements Types of M.I	
④	4/12/17	01	Parts of DC Machine, Working of DC Machine	
⑤	8/12/17	01	PSA - Single line diagram	
⑥	10/12/17	01	Basic fundamentals circuits	
⑦	15/12/17	01	Deflecting torque in various types of instruments	
⑧	17/12/17	01	Airature reaction.	
⑨	21/12/17	01	Block diagram reduction	
⑩	22/12/17	01	Series and parallel connection	
⑪	23/12/17	01	Shunt Series multipliers	
⑫	29/12/17	01	Types of windings	
⑬	30/12/17	01	Problems on PU System	
⑭	4/01/18	01	AC circuit parameters (R, L, C)	
⑮	8/01/18	01	Characteristics of DC generator.	
⑯	11/01/18	01	Gate Papers Solving.	
⑰	12/1/18	01	Gate Papers Solving.	



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Department of EEE

FEEDBACK FORM ON GATE 2017-18

1. Did the GATE Schedule attain its objectives

- Yes
- No

2. GATE Training was relevant to my needs

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

3. Instructions were clear and understandable

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

4. Content was well organized

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree



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5. Was the Duration of the training sufficient.

- Yes
- No

6. Resource persons were effective.

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

7. Queries were encouraged

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

8. Any additional remarks

9. Overall how would you rate this schedule?

- Excellent
- Very good
- Good
- Fair
- Poor



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Department of EEE

GATE Syllabus for EEE – General Aptitude

- Verbal Ability:
 - Instructions,
 - English grammar,
 - Verbal deduction,
 - Word groups
 - Sentence completion,
 - Critical reasoning
 - Verbal analogies.
 - Numerical Ability
 - Numerical reasoning
 - Numerical computation,
 - Data interpretation, and
 - Numerical estimation.

GATE EEE Syllabus for Engineering Mathematics

Vector Analysis : Gradient, Vectors in plane and space, Divergence and curl, Vector operations, Green's, Gauss's, and Stoke's theorems

Linear Algebra: Matrix algebra, Vector space, Eigenvalues & eigenvectors, Basis, Rank, solution of linear equations: Existence, and Uniqueness. Linear dependence and independence,

Probability and Statistics:

- Mean, median, mode and standard deviation,
- Combinatorial probability,
- Joint and conditional probability,
- Probability distribution functions:
 - Binomial,

- Poisson, and
- Normal.

Calculus:

- Maxima and minima,
- Mean value theorems,
- Taylor series,
- Theorems of integral calculus,
- Multiple integrals,
- Evaluation of definite and improper integrals,
- Surface and volume integrals,
- Partial derivatives,
- Line.

Complex Analysis:

- Cauchy's integral formula,
- Analytic functions,
- Residue theorem,
- Cauchy's integral theorem,
- Taylor's and Laurent's series.

Differential Equations:

- Particular integral & Complementary function,
- First order equations (nonlinear and linear),
- Initial & boundary value problems,
- Higher order linear differential equations,
- Partial differential equations,
- Cauchy's & Euler's equations,
- Variable separable method,
- Methods of solution using the variation of parameters.

Numerical Methods:

- Single & Multi-step methods for differential equations,
- Convergence criteria,
- Solution of nonlinear equations.

GAESyllabus for EEE--Networks, Signals and Systems

- Network solution methods:
 - Solution of network equations using Laplace transform,
 - Nodal and mesh analysis,
 - State equations for networks,
 - Time domain analysis of simple linear circuits,
 - Network theorems:
 - Superposition,
 - Maximum power transfer
 - Thevenin and Norton's.

- Frequency domain analysis of RLC circuits,
- Wye- Delta transformation,
- Linear 2-port network parameters:
 - Driving point and
 - Transfer functions.
- Steady state sinusoidal analysis using phasors
- Continuous-time signals:
- Discrete-time signals: Z-transform, Discrete-time Fourier transform (DTFT), Interpolation of discrete-time signals, FFT, DFT.

Fourier series and Fourier transform representations
LTI systems:

- Poles and zeros,
- Definition and properties,
- Digital filter design techniques,
- Causality,
- Parallel and cascade structure,
- Stability,
- Phase delay,
- Impulse response,
- Frequency response.

Syllabus of GATE EEE 2017-18—Electronic Devices

- BJT,
- Energy bands in intrinsic & extrinsic silicon,
- Integrated circuit fabrication process:
 - Ion implantation,
 - Oxidation,
 - Photo lithography & twin-tub CMOS process,
 - Diffusion. Carrier transport:
 - Resistivity,
 - Diffusion current,
 - Mobility, and
 - Drift current.

MOS capacitor,
Generation and recombination of carriers
Photo diode and Solar cell,
Poisson and continuity equations
MOSFET, P-N junction, LED
Zener diode.

GATE Syllabus for EEE 2017-18 –Analog Circuits

- Active filters,
 - Small signal equivalent circuits of diodes,
 - Power supplies:
 - Ripple removal ,and
 - Regulation.
- BJTs and MOSFETs
Sinusoidal
oscillators:
- Criterion for oscillation,
 - Single-transistor & op-amp configurations.

- Simple diode circuits:

- Clamping,
- Clipping ,and
- Rectifiers

Voltage reference circuits,

Single-stage BJT and MOSFET amplifiers:

- Biasing,
- Mid-frequency small signal analysis,
- Bias stability,and
- Frequency

response.

- Function

generators,

BJT and MOSFET amplifiers:

- Multi-stage,
- Differential,
- Feedback,
- Power & operational.

Wave-shaping circuits and 555 timers, Simple op-amp circuits.

GATE 2017-18 EEE Syllabus –Digital Circuits

- Data converters:
 - ADCs and DACs,
 - Sample & hold circuits.

Number systems,

Combinatorial circuits:

- Code converters,
- Boolean algebra,
- Decoders and PLAs,

- Arithmetic circuits,
- Minimization of functions using Karnaugh map & Boolean identities,
- Multiplexers,
- Logic gates & their static CMOS implementations.

Semiconductor memories:

- ROM,
- DRAM,
- SRAM.

Sequential circuits:

- Shift-registers,
- Latches & flip-flops,
- Finite state machines,
- Counters.

GATE Exam Syllabus EEE 2017-18 – Control Systems

- Transient & steady-state analysis of LTI systems,
- Basic control system components,
- Lag, lead & lag-lead compensation,
- Frequency response,
- Feedback principle,
- Bode and root-locus plots,
- State variable model,
- Transfer function,
- Solution of state equation of LTI systems;
- Block diagram representation,
- Routh-Hurwitz and Nyquist stability criteria,
- Signal flow graph.

GATE Syllabus for EEE 2017-18 –DC MACHINES

- Basics of DC machines.
- Introduction to electric drives/
- Introduction to measurements, types of MI
- Parts of dc machines, working of DCMK



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DETAILED REPORT ON CONDUCTION OF GATE CLASSES (2017-18)

GATE exam has gained a lot of Importance as students who qualify GATE are eligible for direct recruitment in PSUs like BPCL, ONGC, BARC, NTPC, NPCIL, GAIL, BHEL, DRDO, IOCL, NALCO,

CtC.HOD EEE visited all the final year EEE classes and highlighted the importance of GATE exam for PSUs as well as higher studies. This improved the enrolment ratio from around 45% in year 2013-14 to around 72% in consecutive years. GATE (2017-18) Classes have been handled for IV EEE Students from 04/10/2017 for 2013 admitted batch students and 8 Subjects have been handled by different faculty as stated In the list and they covered the topics from previous gate papers. Training of 60 hrs along with 4 to 5 mock test is scheduled for students appearing GATE 2018. The students participating in GATE Training were also provided with the entire set of notes consisting of Important topics and useful for further preparation.



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GATE 2018

Graduate Aptitude Test in Engineering

INFORMATION BROCHURE

Organizing Institute
Indian Institute of Technology Guwahati

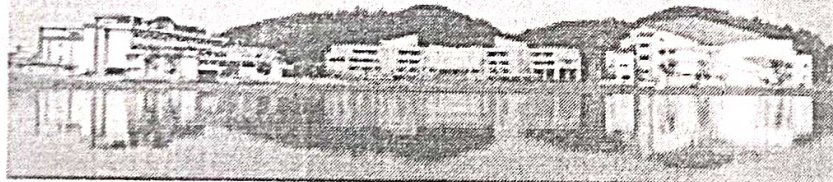


Table 3.1 Important Dates related to GATE 2018

GATE Online Application Processing System (GOAPS) Website Opens	Friday	01 st September 2017
Last Date for Submission of (Online) Application (through Website)	Thursday	05 th October 2017
Last Date for Requesting Change of Examination City (an additional fee will be applicable)	Friday	17 th November 2017
Admit Card will be available in the Online Application Portal (for printing)	Friday	05 th January 2018
GATE 2018 Examination Forenoon: 9:00 AM to 12:00 Noon Afternoon: 2:00 PM to 5:00 PM	Saturday Sunday Saturday Sunday	03 rd February 2018 04 th February 2018 10 th February 2018 11 th February 2018
Announcement of the Results in the Online Application Portal	Saturday	17 th March 2018