

# COMPETITIVE EXAMS

**A.Y:2016-17**



# IDEAL INSTITUTE OF TECHNOLOGY

(Approved by AICTE, New Delhi & Affiliated To JNTUK, Kakinada)

Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 13.11.17

## CIRCULAR

All the III-I semester Civil students are hereby inform that, our Civil Engineering department planning to conduct special classes for GATE & Other competitive examinations. So in this connection all the students are required to utilise this opportunity and attend classes regularly without fail. Timings for the above classes will be 4pm-6pm every day from 20.11.17 onwards.

  
PRINCIPAL

- Cc to
1. Principal office
  2. Civil HOD
  3. Notice board
  4. Class Teacher



# IDEAL INSTITUTE OF TECHNOLOGY

(Approved by AICTE, New Delhi & Affiliated To JNTUK, Kakinada)

Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 13.11.17

## Faculties Allotted for A.Y 2016-17

S.No	Subject	Faculty Name	Designation	Signature
1	Geo Technical Engineering	M Subha Renuka	Assistant Professor	
2	Environmental Engineering	R Gayatri Devi	Assistant Professor	
3	Fluid Mechanics	K Lakshmi Satya	Assistant Professor	
4	Steel Structures	S Nazeer Ahmed	Assistant Professor	
5	Solid Mechanics	K Lakshmi Satya	Assistant Professor	

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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 13.11.17

The list of topics that will be covered in GATE coaching for III year B.Tech students are as follows:

## **Geotechnical Engineering:**

Three-phase system and phase relationships, index properties; Unified and Indian standard soil classification system; Permeability - one dimensional flow, Seepage through soils - two - dimensional flow, flow nets, uplift pressure, piping, capillarity, seepage force; Principle of effective stress and quicksand condition; Compaction of soils; One- dimensional consolidation, time rate of consolidation; Shear Strength, Mohr's circle, effective and total shear strength parameters, Stress-Strain characteristics of clays and sand; Stress paths.

## **Environmental Engineering:**

Water and Waste Water Quality and Treatment: Basics of water quality standards – Physical, chemical and biological parameters; Water quality index; Unit processes and operations; Water requirement; Water distribution system; Drinking water treatment. Sewerage system design, quantity of domestic wastewater, primary and secondary treatment. Effluent discharge standards; Sludge disposal; Reuse of treated sewage for different applications.

## **Fluid Mechanics:**

Properties of fluids, fluid statics; Continuity, momentum and energy equations and their applications; Potential flow, Laminar and turbulent flow; Flow in pipes, pipe networks; Concept of boundary layer and its growth; Concept of lift and drag.

## **Steel Structures:**

Working stress and Limit state design concepts; Design of tension and compression members, beams and beam- columns, column bases; Connections - simple and eccentric, beam-column connections, plate girders and trusses; Concept of plastic analysis -beams and frames.

## **Solid Mechanics:**

Bending moment and shear force in statically determinate beams; Simple stress and strain relationships; Simple bending theory, flexural and shear stresses, shear centre; Uniform torsion, Transformation of stress; buckling of column, combined and direct bending stresses.

  
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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 20.01.2018

## Report

**Name of the Event:** Coaching for Competitive Exams

**Date:** 20.11.2017 to 13.01.2018

The management of IDEAL Institute of Technology has conducted coaching classes for III B.Tech students for GATE and other competitive examinations. As per the directions given by the management the department of **Civil Engineering** has planned to conduct coaching classes on the working days from 4 P.M to 6 P.M daily.

As per the revised schedule the outcome of the program focused on the fundamentals in various subjects and provided relevant information to score well. The students have expressed immense satisfaction with the coaching programme.

**Number of Participants:** 33

**Details of Resource Person:**

S.No	Subject	Faculty Name	Designation
1	Geo Technical Engineering	M SubhaRenuka	Assistant Professor
2	Environmental Engineering	R Gayatri Devi	Assistant Professor
3	Fluid Mechanics	K Lakshmi Satya	Assistant Professor
4	Steel Structures	S Nazeer Ahmed	Assistant Professor
5	Solid Mechanics	K Lakshmi Satya	Assistant Professor

  
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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 13.11.17

## CIRCULAR

All the III-I semester Electrical and Electronics students are hereby inform that, our Electrical and Electronics Engineering department planning to conduct special classes for GATE & Other competitive examinations. So in this connection all the students are required to utilise this opportunity and attend classes regularly without fail. Timings for the above classes will be 4pm-6pm every day from 20.11.17 onwards.

  
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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 13.11.17

## Faculties Allotted for A.Y 2016-17

S.No	Subject	Faculty Name	Designation	Signature
1	Control Systems	D Madhu	Assistant Professor	<i>D. Madhu</i>
2	Circuit Analysis	M Jagadesh	Assistant Professor	<i>M. Jagadesh</i>
3	Electrical Machines	Ch Vinod Kumar	Associate Professor	<i>Ch. Vinod Kumar</i>
4	Electric Circuits	I Arun Kumar	Assistant Professor	<i>I. Arun Kumar</i>
5	Electro Magnetic Fields	K Venkateswar Rao	Assistant Professor	<i>K. Venkateswar Rao</i>

*T. S. K.*  
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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 13.11.17

The list of topics that will be covered in GATE coaching for III year B.Tech students are as follows:

## **Control Systems:**

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

## **Network analysis:**

Node and mesh analysis, superposition, Thevenin's theorem, Norton's theorem, reciprocity. Sinusoidal steady state analysis: phasors, complex power, maximum power transfer. Time and frequency domain analysis of linear circuits: RL, RC and RLC circuits, solution of network equations using Laplace transform. Linear 2-port network parameters, wye-delta transformation.

## **Electrical Machines:**

Single phase transformer: Equivalent circuit, phasor diagram, open circuit and short circuit tests, regulation and efficiency; Three-phase transformers: connections, vector groups, parallel operation; Auto-transformer, Electromechanical energy conversion principles; DC machines: separately excited, series and shunt, motoring and generating mode of operation and their characteristics, speed control of dc motors; Three-phase induction machines: principle of operation, types, performance, torque-speed characteristics, no-load and blocked-rotor tests, equivalent circuit, starting and speed control; Operating principle of single-phase induction motors; Synchronous machines: cylindrical and salient pole machines, performance and characteristics, regulation and parallel operation of generators, starting of synchronous motors; Types of losses and efficiency calculations of electric machines

## **Electric circuits**

**Network elements:** Ideal voltage and current sources, dependent sources, R, L, C, M elements; **Network solution methods:** KCL, KVL, Node and Mesh analysis; **Network Theorems:** Thevenin's, Norton's, Superposition and Maximum Power Transfer theorem; **Transient response** of dc and ac networks, sinusoidal steady-state analysis, resonance, two port networks, balanced three phase circuits, star-delta transformation, complex power and power factor in ac circuits.



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## Electromagnetic Fields:

Coulomb's Law, Electric Field Intensity, Electric Flux Density, Gauss's Law, Divergence, Electric field and potential due to point, line, plane and spherical charge distributions, Effect of dielectric medium, Capacitance of simple configurations, Biot-Savart's law, Ampere's law, Curl, Faraday's law, Lorentz force, Inductance, Magnetomotive force, Reluctance, Magnetic circuits, Self and Mutual inductance of simple configurations.

  
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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 20.01.2018

## Report

**Name of the Event:** Coaching for Competitive Exams

**Date:** 20.11.2017 to 13.01.2018

The management of IDEAL Institute of Technology has conducted coaching classes for III B.Tech students for GATE and other competitive examinations. As per the directions given by the management the department of **Electrical and Electronics Engineering** has planned to conduct coaching classes on the working days from 4 P.M to 6 P.M daily.

As per the revised schedule the outcome of the program focused on the fundamentals in various subjects and provided relevant information to score well. The students have expressed immense satisfaction with the coaching programme.

**Number of Participants:** 18

**Details of Resource Person:**

S.No	Subject	Faculty Name	Designation
1	Control Systems	D Madhu	Assistant Professor
2	Circuit Analysis	M Jagadesh	Assistant Professor
3	Electrical Machines	ChVinod Kumar	Associate Professor
4	Electric Circuits	I Arun Kumar	Assistant Professor
5	Electro Magnetic Fields	K VenkateswarRao	Assistant Professor

*Ch Vinod Kumar*

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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 13.11.17

## CIRCULAR

All the III-I semester Mechanical students are hereby inform that, our Mechanical Engineering department planning to conduct special classes for GATE & Other competitive examinations. So in this connection all the students are required to utilise this opportunity and attend classes regularly without fail. Timings for the above classes will be 4pm-6pm every day from 20.11.17 onwards.

  
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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 13.11.17

## Faculties Allotted for A.Y 2016-17

S.No	Subject	Faculty Name	Designation	Signature
1	Design and Machine Members	K Karuna	Assistant Professor	<i>Karuna</i>
2	Integral Combustion Engines	K Vijaya	Assistant Professor	<i>K.vijaya</i>
3	Dynamics of Machines	M Dedeepya	Assistant Professor	<i>M. Dedeepya</i>
4	Thermodynamics	N Raja Naidu	Assistant Professor	<i>(N)</i>
5	Engineering Mechanics	R Vijaya Lakshmi	Assistant Professor	<i>R.v.l.</i>

*T.S.*  
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Vidyut Nagar, Kakinada-533003 (A.P.)

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The list of topics that will be covered in GATE coaching for III year B.Tech students are as follows:

## **Engineering Mechanics:**

Free-body diagrams and equilibrium; friction and its applications including rolling friction, belt-pulley, brakes, clutches, screw jack, wedge, vehicles, etc.; trusses and frames; virtual work; kinematics and dynamics of rigid bodies in plane motion; impulse and momentum (linear and angular) and energy formulations; Lagrange's equation.

## **Mechanics of Materials:**

Stress and strain, elastic constants, Poisson's ratio; Mohr's circle for plane stress and plane strain; thin cylinders; shear force and bending moment diagrams; bending and shear stresses; concept of shear centre; deflection of beams; torsion of circular shafts; Euler's theory of columns; energy methods; thermal stresses; strain gauges and rosettes; testing of materials with universal testing machine; testing of hardness and impact strength.

## **Theory of Machines:**

Displacement, velocity and acceleration analysis of plane mechanisms; dynamic analysis of linkages; cams; gears and gear trains; flywheels and governors; balancing of reciprocating and rotating masses; gyroscope. Vibrations: Free and forced vibration of single degree of freedom systems, effect of damping; vibration isolation; resonance; critical speeds of shafts.

## **Machine Design:**

Design for static and dynamic loading; failure theories; fatigue strength and the SN diagram; principles of the design of machine elements such as bolted, riveted and welded joints; shafts, gears, rolling and sliding contact bearings, brakes and clutches, springs.

## **Fluid Mechanics:**

Fluid properties; fluid statics, 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; basics of compressible fluid flow.

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## Report

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**Date:** 20.11.2017 to 13.01.2018

The management of IDEAL Institute of Technology has conducted coaching classes for III B.Tech students for GATE and other competitive examinations. As per the directions given by the management the department of **Mechanical Engineering** has planned to conduct coaching classes on the working days from 4 P.M to 6 P.M daily.

As per the revised schedule the outcome of the program focused on the fundamentals in various subjects and provided relevant information to score well. The students have expressed immense satisfaction with the coaching programme.

**Number of Participants:** 50

**Details of Resource Person:**

S.No	Subject	Faculty Name	Designation
1	Design and Machine Members	K Karuna	Assistant Professor
2	Integral Combustion Engines	K Vijaya	Assistant Professor
3	Dynamics of Machines	M Dedeepya	Assistant Professor
4	Thermodynamics	N Raja Naidu	Assistant Professor
5	Engineering Mechanics	R Vijaya Lakshmi	Assistant Professor

  
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## CIRCULAR

All the III-I semester Electronics and Communication students are hereby inform that, our Electronics and Communication Engineering department planning to conduct special classes for GATE & Other competitive examinations. So in this connection all the students are required to utilise this opportunity and attend classes regularly without fail. Timings for the above classes will be 4pm-6pm every day from 20.11.17 onwards.

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13/11/17

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Date: 13.11.17

## Faculties Allotted for A.Y 2016-17

S.No	Subject	Faculty Name	Designation	Signature
1	Control Systems	D Madhu	Assistant Professor	D. Madhu
2	Network Analysis	M Jagadesh	Assistant Professor	M Jagadesh
3	Digital Communications	B V Kalyan Ram	Assistant Professor	B.V. Kalyan Ram
4	Continuous Time Signals	Ch Venkata Prakash	Assistant Professor	Ch. V. Prakash
5	Discrete Time Signals	D Vijaya Lakshmi	Assistant Professor	D. Vijaya Lakshmi

T. S. Sridhar  
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Date: 13.11.17

The list of topics that will be covered in GATE coaching for III year B.Tech students are as follows:

## **Control Systems:**

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

## **Network analysis:**

Node and mesh analysis, superposition, Thevenin's theorem, Norton's theorem, reciprocity. Sinusoidal steady state analysis: phasors, complex power, maximum power transfer. Time and frequency domain analysis of linear circuits: RL, RC and RLC circuits, solution of network equations using Laplace transform. Linear 2-port network parameters, wye-delta transformation.

## **Digital communications:**

PCM, DPCM, digital modulation schemes (ASK, PSK, FSK, QAM), bandwidth, inter-symbol interference, MAP, ML detection, matched filter receiver, SNR and BER. Fundamentals of error correction, Hamming codes, CRC.

## **Continuous-time signals:**

Fourier series and Fourier transform, sampling theorem and applications.

## **Discrete-time signals:**

DTFT, DFT, z-transform, discrete-time processing of continuous-time signals. LTI systems: definition and properties, causality, stability, impulse response, convolution, poles and zeroes, frequency response, group delay, phase delay

  
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Date: 20.01.18

## Report

**Name of the Event:** Coaching for Competitive Exams

**Date:** 20.11.2017 to 13.01.2018

The management of IDEAL Institute of Technology has conducted coaching classes for III B.Tech students for GATE and other competitive examinations. As per the directions given by the management the department of **Electronics and Communication Engineering** has planned to conduct coaching classes on the working days from 4 P.M to 6 P.M daily.

As per the revised schedule the outcome of the program focused on the fundamentals in various subjects and provided relevant information to score well. The students have expressed immense satisfaction with the coaching programme.

**Number of Participants:** 33

**Details of Resource Person:**

S.No	Subject	Faculty Name	Designation
1	Control Systems	D Madhu	Assistant Professor
2	Network Analysis	M Jagadesh	Assistant Professor
3	Digital Communications	B V Kalyan Ram	Assistant Professor
4	Continuous Time Signals	ChVenkataPrakash	Assistant Professor
5	Discrete Time Signals	D Vijaya Lakshmi	Assistant Professor

  
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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 13.11.17

## CIRCULAR

All the III-I semester Computer Science students are hereby inform that, our Computer Science Engineering department planning to conduct special classes for GATE & Other competitive examinations. So in this connection all the students are required to utilise this opportunity and attend classes regularly without fail. Timings for the above classes will be 4pm-6pm every day from 20.11.17 onwards.

  
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1. Principal office
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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 13.11.17

## Faculties Allotted for A.Y 2016-17

S.No	Subject	Faculty Name	Designation	Signature
1	Computer Networks	S Indira Spandana	Assistant Professor	
2	Operating Systems	N Durga Deepti Priya	Assistant Professor	
3	Compiler Design	R V V Gani Lakshmi	Assistant Professor	
4	Data Structures	S Surya Sri	Assistant Professor	
5	Formal Languages and Automata Theory	M S R S Prasad	Assistant Professor	

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Date: 13.11.17

The list of topics that will be covered in GATE coaching for III year B.Tech students are as follows:

## **Computer Networks:**

OSI and TCP/IP Protocol Stacks; Basics of packet, circuit and virtual circuitswitching; Data link layer: framing, error detection, Medium Access Control, Ethernet bridging; Routing protocols: shortest path, flooding, distance vector and link state routing; Fragmentation and IP addressing, IPv4, CIDR notation, Basics of IP support protocols (ARP, DHCP, ICMP), Network Address Translation (NAT); Transport layer: flow control and congestion control, UDP, TCP, sockets; Application layer protocols: DNS, SMTP, HTTP, FTP, Email.

## **Operating System:**

System calls, processes, threads, inter-process communication, concurrency and synchronization. Deadlock. CPU and I/O scheduling. Memory management and virtual memory. File systems.

## **Compiler Design:**

Lexical analysis, parsing, syntax-directed translation. Runtime environments. Intermediate code generation. Local optimisation, Data flow analyses: constant propagation, liveness analysis, common subexpression elimination

## **Data Structures:**

Recursion. Arrays, stacks, queues, linked lists, trees, binary search trees, binary heaps, graphs.

## **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.

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## Report

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The management of IDEAL Institute of Technology has conducted coaching classes for III B.Tech students for GATE and other competitive examinations. As per the directions given by the management the department of **Computer Science Engineering** has planned to conduct coaching classes on the working days from 4 P.M to 6 P.M daily.

As per the revised schedule the outcome of the program focused on the fundamentals in various subjects and provided relevant information to score well. The students have expressed immense satisfaction with the coaching programme.

**Number of Participants:** 25

**Details of Resource Person:**

S.No	Subject	Faculty Name	Designation
1	Computer Networks	S Indira Spandana	Assistant Professor
2	Operating Systems	N DurgaDeeptiPriya	Assistant Professor
3	Compiler Design	R V VGani Lakshmi	Assistant Professor
4	Data Structures	S Surya Sri	Assistant Professor
5	Formal Languages and Automata Theory	M S R S Prasad	Assistant Professor

  
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**A.Y:2017-18**



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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 12.11.18

## CIRCULAR

All the III-I semester Civil students are hereby inform that, our Civil Engineering department planning to conduct special classes for GATE & Other competitive examinations. So in this connection all the students are required to utilise this opportunity and attend classes regularly without fail. Timings for the above classes will be 4pm-6pm every day from 19.11.18 onwards.

  
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Date: 12.11.18

## Faculties Allotted for A.Y 2017-18

S.No	Subject	Faculty Name	Designation	Signature
1	Geo Technical Engineering	B Naga Tulasi	Assistant Professor	<i>Tulasi</i>
2	Environmental Engineering	R Gayatri Devi	Assistant Professor	<i>R. Gayatri Devi</i>
3	Fluid Mechanics	T B N Satya Sirisha	Assistant Professor	<i>T B N Satya Sirisha</i>
4	Transportation and Surveying	M Venkata Rao	Assistant Professor	<i>M Venkata Rao</i>
5	Water Resource Engineering	K Sumavalli	Assistant Professor	<i>K Sumavalli</i>

*T.S.R.*  
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The list of topics that will be covered in GATE coaching for III year B.Tech students are as follows:

## **Geotechnical Engineering:**

Three-phase system and phase relationships, index properties; Unified and Indian standard soil classification system; Permeability - one dimensional flow, Seepage through soils – two - dimensional flow, flow nets, uplift pressure, piping, capillarity, seepage force; Principle of effective stress and quicksand condition; Compaction of soils; One- dimensional consolidation, time rate of consolidation; Shear Strength, Mohr's circle, effective and total shear strength parameters, Stress-Strain characteristics of clays and sand; Stress paths.

## **Environmental Engineering:**

Water and Waste Water Quality and Treatment: Basics of water quality standards – Physical, chemical and biological parameters; Water quality index; Unit processes and operations; Water requirement; Water distribution system; Drinking water treatment. Sewerage system design, quantity of domestic wastewater, primary and secondary treatment. Effluent discharge standards; Sludge disposal; Reuse of treated sewage for different applications.

## **Fluid Mechanics:**

Properties of fluids, fluid statics; Continuity, momentum and energy equations and their applications; Potential flow, Laminar and turbulent flow; Flow in pipes, pipe networks; Concept of boundary layer and its growth; Concept of lift and drag.

## **Water Resources Engineering**

### **Fluid Mechanics:**

Properties of fluids, fluid statics; Continuity, momentum and energy equations and their applications; Potential flow, Laminar and turbulent flow; Flow in pipes, pipe networks; Concept of boundary layer and its growth; Concept of lift and drag.

### **Hydraulics:**

Forces on immersed bodies; Flow measurement in channels and pipes; Dimensional analysis and hydraulic similitude; Channel Hydraulics - Energy-depth relationships, specific energy, critical flow, hydraulic jump, uniform flow, gradually varied flow and water surface profiles.

### **Hydrology:**

Hydrologic cycle, precipitation, evaporation, evapo-transpiration, watershed, infiltration, unit hydrographs, hydrograph analysis, reservoir capacity, flood estimation and routing, surface



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runoff models, ground water hydrology - steady state well hydraulics and aquifers; Application of Darcy's Law.

## **Irrigation:**

Types of irrigation systems and methods; Crop water requirements - Duty, delta, evapotranspiration; Gravity Dams and Spillways; Lined and unlined canals, Design of weirs on permeable foundation; cross drainage structures.

## **Transportation and Surveying:**

Geometric design of highways - cross-sectional elements, sight distances, horizontal and vertical alignments. Geometric design of railway Track – Speed and Cant. Concept of airport runway length, calculations and corrections; taxiway and exit taxiway design.

  
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Date: 19.01.2019

## Report

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**Date:** 19.11.2018 to 12.01.2019

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As per the revised schedule the outcome of the program focused on the fundamentals in various subjects and provided relevant information to score well. The students have expressed immense satisfaction with the coaching programme.

**Number of Participants:** 24

**Details of Resource Person:**

S.No	Subject	Faculty Name	Designation
1	Geo Technical Engineering	B Naga Tulasi	Assistant Professor
2	Environmental Engineering	R Gayatri Devi	Assistant Professor
3	Fluid Mechanics	T B N SatyaSirisha	Assistant Professor
4	Transportation and Surveying	M VenkataRao	Assistant Professor
5	Water Resource Engineering	K Sumavalli	Assistant Professor

  
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## CIRCULAR

All the III-I semester Electrical and Electronics students are hereby inform that, our Electrical and Electronics Engineering department planning to conduct special classes for GATE & Other competitive examinations. So in this connection all the students are required to utilise this opportunity and attend classes regularly without fail. Timings for the above classes will be 4pm-6pm every day from 19.11.18 onwards.

  
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# IDEAL INSTITUTE OF TECHNOLOGY

(Approved by AICTE, New Delhi & Affiliated To JNTUK, Kakinada)

Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 12.11.18

## Faculties Allotted for A.Y 2017-18

S.No	Subject	Faculty Name	Designation	Signature
1	Control Systems	D Madhu	Assistant Professor	
2	Circuit Analysis	M Jagadesh	Assistant Professor	
3	Electrical Machines	Ch Vinod Kumar	Associate Professor	
4	Power Systems	K Venkateswar Rao	Assistant Professor	
5	Signals and Systems	G Ravi Kumar	Assistant Professor	

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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 12.11.18

The list of topics that will be covered in GATE coaching for III year B.Tech students are as follows:

## **Control Systems:**

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

## **Network analysis:**

Node and mesh analysis, superposition, Thevenin's theorem, Norton's theorem, reciprocity. Sinusoidal steady state analysis: phasors, complex power, maximum power transfer. Time and frequency domain analysis of linear circuits: RL, RC and RLC circuits, solution of network equations using Laplace transform. Linear 2-port network parameters, wye-delta transformation.

## **Electrical Machines:**

Single phase transformer: Equivalent circuit, phasor diagram, open circuit and short circuit tests, regulation and efficiency; Three-phase transformers: connections, vector groups, parallel operation; Auto-transformer, Electromechanical energy conversion principles; DC machines: separately excited, series and shunt, motoring and generating mode of operation and their characteristics, speed control of dc motors; Three-phase induction machines: principle of operation, types, performance, torque-speed characteristics, no-load and blocked-rotor tests, equivalent circuit, starting and speed control; Operating principle of single-phase induction motors; Synchronous machines: cylindrical and salient pole machines, performance and characteristics, regulation and parallel operation of generators, starting of synchronous motors; Types of losses and efficiency calculations of electric machines

## **Signals and Systems:**

Representation of continuous and discrete time signals, shifting and scaling properties, linear time invariant and causal systems, Fourier series representation of continuous and discrete time periodic signals, sampling theorem, Applications of Fourier Transform for continuous and discrete time signals, Laplace Transform and Z transform. R.M.S. value, average value calculation for any general periodic waveform



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## Power Systems:

Basic concepts of electrical power generation, ac and dc transmission concepts, Models and performance of transmission lines and cables, Economic Load Dispatch (with and without considering transmission losses), Series and shunt compensation, Electric field distribution and insulators, Distribution systems, Per-unit quantities, Bus admittance matrix, Gauss- Seidel and Newton-Raphson load flow methods, Voltage and Frequency control, Power factor correction, Symmetrical components, Symmetrical and unsymmetrical fault analysis, Principles of over-current, differential, directional and distance protection; Circuit breakers, System stability concepts, Equal area criterion.

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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 19.01.2019

## Report

**Name of the Event:** Coaching for Competitive Exams

**Date:** 19.11.2018 to 12.01.2019

The management of IDEAL Institute of Technology has conducted coaching classes for III B.Tech students for GATE and other competitive examinations. As per the directions given by the management the department of **Electrical and Electronics Engineering** has planned to conduct coaching classes on the working days from 4 P.M to 6 P.M daily.

As per the revised schedule the outcome of the program focused on the fundamentals in various subjects and provided relevant information to score well. The students have expressed immense satisfaction with the coaching programme.

**Number of Participants:** 35

**Details of Resource Person:**

S.No	Subject	Faculty Name	Designation
1	Control Systems	D Madhu	Assistant Professor
2	Circuit Analysis	M Jagadesh	Assistant Professor
3	Electrical Machines	ChVinod Kumar	Associate Professor
4	Electric Circuits	I Arun Kumar	Assistant Professor
5	Electro Magnetic Fields	K VenkateswarRao	Assistant Professor

*Chandana Kumar*  
HOD



# IDEAL INSTITUTE OF TECHNOLOGY

(Approved by AICTE, New Delhi & Affiliated To JNTUK, Kakinada)

Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 12.11.18

## CIRCULAR

All the III-I semester Mechanical students are hereby inform that, our Mechanical Engineering department planning to conduct special classes for GATE & Other competitive examinations. So in this connection all the students are required to utilise this opportunity and attend classes regularly without fail. Timings for the above classes will be 4pm-6pm every day from 19.11.18 onwards.

  
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- Cc to
1. Principal office
  2. Mechanical HOD
  3. Notice board
  4. Class Teacher



# IDEAL INSTITUTE OF TECHNOLOGY

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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 12.11.18

## Faculties Allotted for A.Y 2017-18

S.No	Subject	Faculty Name	Designation	Signature
1	Design and Machine Members	K Karuna	Assistant Professor	
2	Integral Combustion Engines	SK Adamsha	Assistant Professor	
3	Dynamics of Machines	M Dedeepya	Assistant Professor	
4	Applied Thermodynamics	N Raja Naidu	Assistant Professor	
5	Refrigeration and Air Conditioning	R Vijaya Lakshmi	Assistant Professor	

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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 12.11.18

The list of topics that will be covered in GATE coaching for III year B.Tech students are as follows:

## **Engineering Mechanics:**

Free-body diagrams and equilibrium; friction and its applications including rolling friction, belt-pulley, brakes, clutches, screw jack, wedge, vehicles, etc.; trusses and frames; virtual work; kinematics and dynamics of rigid bodies in plane motion; impulse and momentum (linear and angular) and energy formulations; Lagrange's equation.

## **Mechanics of Materials:**

Stress and strain, elastic constants, Poisson's ratio; Mohr's circle for plane stress and plane strain; thin cylinders; shear force and bending moment diagrams; bending and shear stresses; concept of shear centre; deflection of beams; torsion of circular shafts; Euler's theory of columns; energy methods; thermal stresses; strain gauges and rosettes; testing of materials with universal testing machine; testing of hardness and impact strength.

## **Theory of Machines:**

Displacement, velocity and acceleration analysis of plane mechanisms; dynamic analysis of linkages; cams; gears and gear trains; flywheels and governors; balancing of reciprocating and rotating masses; gyroscope. Vibrations: Free and forced vibration of single degree of freedom systems, effect of damping; vibration isolation; resonance; critical speeds of shafts.

## **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



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## 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.

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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 19.01.2019

## Report

**Name of the Event:** Coaching for Competitive Exams

**Date:** 19.11.2018 to 12.01.2019

The management of IDEAL Institute of Technology has conducted coaching classes for III B.Tech students for GATE and other competitive examinations. As per the directions given by the management the department of **Mechanical Engineering** has planned to conduct coaching classes on the working days from 4 P.M to 6 P.M daily.

As per the revised schedule the outcome of the program focused on the fundamentals in various subjects and provided relevant information to score well. The students have expressed immense satisfaction with the coaching programme.

**Number of Participants:** 49

**Details of Resource Person:**

S.No	Subject	Faculty Name	Designation
1	Design and Machine Members	K Karuna	Assistant Professor
2	Integral Combustion Engines	SK Adamsha	Assistant Professor
3	Dynamics of Machines	M Dedeepya	Assistant Professor
4	Applied Thermodynamics	N Raja Naidu	Assistant Professor
5	Refrigeration and Air Conditioning	R Vijaya Lakshmi	Assistant Professor

  
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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 12.11.18

## CIRCULAR

All the III-I semester Electronics and Communication students are hereby inform that, our Electronics and Communication Engineering department planning to conduct special classes for GATE & Other competitive examinations. So in this connection all the students are required to utilise this opportunity and attend classes regularly without fail. Timings for the above classes will be 4pm-6pm every day from 19.11.18 onwards.

  
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1. Principal office
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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 12.11.18

## Faculties Allotted for A.Y 2017-18

S.No	Subject	Faculty Name	Designation	Signature
1	Control Systems	D Madhu	Assistant Professor	D. Madhu
2	Network Analysis	M Jagadesh	Assistant Professor	M. Jagadesh
3	Digital Communications	B V Kalyan Ram	Assistant Professor	B.V. Kalyan Ram
4	Digital Circuits	Ch Venkata Prakash	Assistant Professor	Ch. Venkata Prakash
5	Electromagnetics	D Vijaya Lakshmi	Assistant Professor	D. Vijaya Lakshmi

  
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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 12.11.18

The list of topics that will be covered in GATE coaching for III year B.Tech students are as follows:

## **Control Systems:**

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

## **Network analysis:**

Node and mesh analysis, superposition, Thevenin's theorem, Norton's theorem, reciprocity. Sinusoidal steady state analysis: phasors, complex power, maximum power transfer. Time and frequency domain analysis of linear circuits: RL, RC and RLC circuits, solution of network equations using Laplace transform. Linear 2-port network parameters, wye-delta transformation.

## **Digital communications:**

PCM, DPCM, digital modulation schemes (ASK, PSK, FSK, QAM), bandwidth, inter-symbol interference, MAP, ML detection, matched filter receiver, SNR and BER. Fundamentals of error correction, Hamming codes, CRC.

## **Digital Circuits:**

Number representations: binary, integer and floating-point- numbers. Combinatorial circuits: Boolean algebra, minimization of functions using Boolean identities and Karnaugh map, logic gates and their static CMOS implementations, arithmetic circuits, code converters, multiplexers, decoders.

## **Electromagnetics**

### **Maxwell's equations:**

Differential and integral forms and their interpretation, boundary conditions, wave equation, Poynting vector.

### **Plane waves and properties:**

Reflection and refraction, polarization, phase and group velocity, propagation through various media, skin depth.



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## Transmission lines:

Equations, characteristic impedance, impedance matching, impedance transformation, S-parameters, Smith chart. Rectangular and circular waveguides, light propagation in optical fibers, dipole and monopole antennas, linear antenna arrays.

  
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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 19.01.2019

## Report

**Name of the Event:** Coaching for Competitive Exams

**Date:** 19.11.2018 to 12.01.2019

The management of IDEAL Institute of Technology has conducted coaching classes for III B.Tech students for GATE and other competitive examinations. As per the directions given by the management the department of **Electronics and Communication Engineering** has planned to conduct coaching classes on the working days from 4 P.M to 6 P.M daily.

As per the revised schedule the outcome of the program focused on the fundamentals in various subjects and provided relevant information to score well. The students have expressed immense satisfaction with the coaching programme.

**Number of Participants:** 44

**Details of Resource Person:**

S.No	Subject	Faculty Name	Designation
1	Control Systems	D Madhu	Assistant Professor
2	Network Analysis	M Jagadesh	Assistant Professor
3	Digital Communications	B V Kalyan Ram	Assistant Professor
4	Digital Circuits	ChVenkataPrakash	Assistant Professor
5	Electromagnetics	D Vijaya Lakshmi	Assistant Professor

  
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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 12.11.18

## CIRCULAR

All the III-I semester Computer Science students are hereby inform that, our Computer Science Engineering department planning to conduct special classes for GATE & Other competitive examinations. So in this connection all the students are required to utilise this opportunity and attend classes regularly without fail. Timings for the above classes will be 4pm-6pm every day from 19.11.18 onwards.

  
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- Cc to
1. Principal office
  2. Computer Science Engineering HOD
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# IDEAL INSTITUTE OF TECHNOLOGY

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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 12.11.18

## Faculties Allotted for A.Y 2017-18

S.No	Subject	Faculty Name	Designation	Signature
1	Computer Networks	M S R S Prasad	Assistant Professor	
2	Operating Systems	S Indira Spandana	Assistant Professor	
3	Compiler Design	R V V Gani Lakshmi	Assistant Professor	
4	Digital Logic Design	N Veeramani	Assistant Professor	
5	Database Management System	S Jyothirmayee	Assistant Professor	

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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 12.11.18

The list of topics that will be covered in GATE coaching for III year B.Tech students are as follows:

## **Computer Networks:**

OSI and TCP/IP Protocol Stacks; Basics of packet, circuit and virtual circuitswitching; Data link layer: framing, error detection, Medium Access Control, Ethernet bridging; Routing protocols: shortest path, flooding, distance vector and link state routing; Fragmentation and IP addressing, IPv4, CIDR notation, Basics of IP support protocols (ARP, DHCP, ICMP), Network Address Translation (NAT); Transport layer: flow control and congestion control, UDP, TCP, sockets; Application layer protocols: DNS, SMTP, HTTP, FTP, Email.

## **Operating System:**

System calls, processes, threads, inter-process communication, concurrency and synchronization. Deadlock. CPU and I/O scheduling. Memory management and virtual memory. File systems.

## **Compiler Design:**

Lexical analysis, parsing, syntax-directed translation. Runtime environments. Intermediate code generation. Local optimisation, Data flow analyses: constant propagation, liveness analysis, common subexpression elimination

## **Digital Logic Design:**

Boolean algebra, Combinational and sequential circuits, Minimization, Number representations and computer arithmetic (fixed and floating point).

## **Database Management Systems:**

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.

  
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Date: 19.01.2019

## Report

**Name of the Event:** Coaching for Competitive Exams

**Date:** 19.11.2018 to 12.01.2019

The management of IDEAL Institute of Technology has conducted coaching classes for III B.Tech students for GATE and other competitive examinations. As per the directions given by the management the department of **Computer Science Engineering** has planned to conduct coaching classes on the working days from 4 P.M to 6 P.M daily.

As per the revised schedule the outcome of the program focused on the fundamentals in various subjects and provided relevant information to score well. The students have expressed immense satisfaction with the coaching programme.

**Number of Participants:** 45

**Details of Resource Person:**

S.No	Subject	Faculty Name	Designation
1	Computer Networks	M S R S Prasad	Assistant Professor
2	Operating Systems	S Indira Spandana	Assistant Professor
3	Compiler Design	R V VGani Lakshmi	Assistant Professor
4	Digital Logic Design	N Veeramani	Assistant Professor
5	Database Management System	S Jyothirmayee	Assistant Professor

  
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**A.Y:2018-19**



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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 11.11.19

## CIRCULAR

All the III-I semester Civil students are hereby inform that, our Civil Engineering department planning to conduct special classes for GATE & Other competitive examinations. So in this connection all the students are required to utilise this opportunity and attend classes regularly without fail. Timings for the above classes will be 4pm-6pm every day from 18.11.19 onwards.

  
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- Cc to
1. Principal office
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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 11.11.19

## Faculties Allotted for A.Y 2018-19

S.No	Subject	Faculty Name	Designation	Signature
1	Geo Technical Engineering	B Leela Krishna	Assistant Professor	
2	Environmental Engineering	R Gayatri Devi	Assistant Professor	
3	Fluid Mechanics	T B N Satya Sirisha	Assistant Professor	
4	Steel Structures	K Manjusha	Assistant Professor	
5	Water Resource Engineering	K Sumavalli	Assistant Professor	

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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 11.11.19

The list of topics that will be covered in GATE coaching for III year B.Tech students are as follows:

## **Geotechnical Engineering:**

Three-phase system and phase relationships, index properties; Unified and Indian standard soil classification system; Permeability - one dimensional flow, Seepage through soils - two - dimensional flow, flow nets, uplift pressure, piping, capillarity, seepage force; Principle of effective stress and quicksand condition; Compaction of soils; One- dimensional consolidation, time rate of consolidation; Shear Strength, Mohr's circle, effective and total shear strength parameters, Stress-Strain characteristics of clays and sand; Stress paths.

## **Environmental Engineering:**

Water and Waste Water Quality and Treatment: Basics of water quality standards – Physical, chemical and biological parameters; Water quality index; Unit processes and operations; Water requirement; Water distribution system; Drinking water treatment. Sewerage system design, quantity of domestic wastewater, primary and secondary treatment. Effluent discharge standards; Sludge disposal; Reuse of treated sewage for different applications.

## **Fluid Mechanics:**

Properties of fluids, fluid statics; Continuity, momentum and energy equations and their applications; Potential flow, Laminar and turbulent flow; Flow in pipes, pipe networks; Concept of boundary layer and its growth; Concept of lift and drag.

## **Water Resources Engineering**

### **Fluid Mechanics:**

Properties of fluids, fluid statics; Continuity, momentum and energy equations and their applications; Potential flow, Laminar and turbulent flow; Flow in pipes, pipe networks; Concept of boundary layer and its growth; Concept of lift and drag.

### **Hydraulics:**

Forces on immersed bodies; Flow measurement in channels and pipes; Dimensional analysis and hydraulic similitude; Channel Hydraulics - Energy-depth relationships, specific energy, critical flow, hydraulic jump, uniform flow, gradually varied flow and water surface profiles.

### **Hydrology:**

Hydrologic cycle, precipitation, evaporation, evapo-transpiration, watershed, infiltration, unit hydrographs, hydrograph analysis, reservoir capacity, flood estimation and routing, surface



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runoff models, ground water hydrology - steady state well hydraulics and aquifers; Application of Darcy's Law.

## **Irrigation:**

Types of irrigation systems and methods; Crop water requirements - Duty, delta, evapotranspiration; Gravity Dams and Spillways; Lined and unlined canals, Design of weirs on permeable foundation; cross drainage structures.

## **Steel Structures:**

Working stress and Limit state design concepts; Design of tension and compression members, beams and beam- columns, column bases; Connections - simple and eccentric, beam-column connections, plate girders and trusses; Concept of plastic analysis -beams and frames.

  
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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 18.01.2020

## Report

**Name of the Event:** Coaching for Competitive Exams

**Date:** 19.11.2019 to 12.01.2020

The management of IDEAL Institute of Technology has conducted coaching classes for III B.Tech students for GATE and other competitive examinations. As per the directions given by the management the department of **Civil Engineering** has planned to conduct coaching classes on the working days from 4 P.M to 6 P.M daily.

As per the revised schedule the outcome of the program focused on the fundamentals in various subjects and provided relevant information to score well. The students have expressed immense satisfaction with the coaching programme.

**Number of Participants:** 51

**Details of Resource Person:**

S.No	Subject	Faculty Name	Designation
1	Geo Technical Engineering	B Leela Krishna	Assistant Professor
2	Environmental Engineering	R Gayatri Devi	Assistant Professor
3	Fluid Mechanics	T B N SatyaSirisha	Assistant Professor
4	Steel Structures	K Manjusha	Assistant Professor
5	Water Resource Engineering	K Sumavalli	Assistant Professor

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# IDEAL INSTITUTE OF TECHNOLOGY

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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 11.11.19

## CIRCULAR

All the III-I semester Electrical and Electronics students are hereby inform that, our Electrical and Electronics Engineering department planning to conduct special classes for GATE & Other competitive examinations. So in this connection all the students are required to utilise this opportunity and attend classes regularly without fail. Timings for the above classes will be 4pm-6pm every day from 18.11.19 onwards.

  
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- Cc to
1. Principal office
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  3. Notice board
  4. Class Teacher



# IDEAL INSTITUTE OF TECHNOLOGY

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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 11.11.19

## Faculties Allotted for A.Y 2018-19

S.No	Subject	Faculty Name	Designation	Signature
1	Control Systems	D Madhu	Assistant Professor	D. Madhu
2	Circuit Analysis	M Jagadesh	Assistant Professor	M. Jagadesh
3	Electrical Machines	Ch Vinod Kumar	Associate Professor	Ch. Vinod Kumar
4	Electromagnetic fields	K. Venkateswar Rao	Assistant Professor	K. Venkateswar Rao
5	Signals and Systems	G Ravi Kumar	Assistant Professor	G. Ravi Kumar

  
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# IDEAL INSTITUTE OF TECHNOLOGY

(Approved by AICTE, New Delhi & Affiliated To JNTUK, Kakinada)

Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 11.11.19

The list of topics that will be covered in GATE coaching for III year B.Tech students are as follows:

## **Control Systems:**

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

## **Network analysis:**

Node and mesh analysis, superposition, Thevenin's theorem, Norton's theorem, reciprocity. Sinusoidal steady state analysis: phasors, complex power, maximum power transfer. Time and frequency domain analysis of linear circuits: RL, RC and RLC circuits, solution of network equations using Laplace transform. Linear 2-port network parameters, wye-delta transformation.

## **Electrical Machines:**

Single phase transformer: Equivalent circuit, phasor diagram, open circuit and short circuit tests, regulation and efficiency; Three-phase transformers: connections, vector groups, parallel operation; Auto-transformer, Electromechanical energy conversion principles; DC machines: separately excited, series and shunt, motoring and generating mode of operation and their characteristics, speed control of dc motors; Three-phase induction machines: principle of operation, types, performance, torque-speed characteristics, no-load and blocked-rotor tests, equivalent circuit, starting and speed control; Operating principle of single-phase induction motors; Synchronous machines: cylindrical and salient pole machines, performance and characteristics, regulation and parallel operation of generators, starting of synchronous motors; Types of losses and efficiency calculations of electric machines

## **Electromagnetic Fields:**

Coulomb's Law, Electric Field Intensity, Electric Flux Density, Gauss's Law, Divergence, Electric field and potential due to point, line, plane and spherical charge distributions, Effect of dielectric medium, Capacitance of simple configurations, Biot-Savart's law, Ampere's law, Curl, Faraday's law, Lorentz force, Inductance, Magnetomotive force, Reluctance, Magnetic circuits, Self and Mutual inductance of simple configurations.



# IDEAL INSTITUTE OF TECHNOLOGY

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Vidyut Nagar, Kakinada-533003 (A.P.)

## Signals and Systems:

Representation of continuous and discrete time signals, shifting and scaling properties, linear time invariant and causal systems, Fourier series representation of continuous and discrete time periodic signals, sampling theorem, Applications of Fourier Transform for continuous and discrete time signals, Laplace Transform and Z transform. R.M.S. value, average value calculation for any general periodic waveform

  
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# IDEAL INSTITUTE OF TECHNOLOGY

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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 18.01.2020

## Report

**Name of the Event:** Coaching for Competitive Exams

**Date:** 19.11.2019 to 12.01.2020

The management of IDEAL Institute of Technology has conducted coaching classes for III B.Tech students for GATE and other competitive examinations. As per the directions given by the management the department of **Electrical and Electronics Engineering** has planned to conduct coaching classes on the working days from 4 P.M to 6 P.M daily.

As per the revised schedule the outcome of the program focused on the fundamentals in various subjects and provided relevant information to score well. The students have expressed immense satisfaction with the coaching programme.

**Number of Participants:** 53

**Details of Resource Person:**

S.No	Subject	Faculty Name	Designation
1	Control Systems	D Madhu	Assistant Professor
2	Circuit Analysis	M Jagadesh	Assistant Professor
3	Electrical Machines	ChVinod Kumar	Associate Professor
4	Electromagnetic fields	K VenkateswarRao	Assistant Professor
5	Signals and Systems	G Ravi Kumar	Assistant Professor

*A. Samir*  
HOD



# IDEAL INSTITUTE OF TECHNOLOGY

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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 11.11.19

## CIRCULAR

All the III-I semester Mechanical students are hereby inform that, our Mechanical Engineering department planning to conduct special classes for GATE & Other competitive examinations. So in this connection all the students are required to utilise this opportunity and attend classes regularly without fail. Timings for the above classes will be 4pm-6pm every day from 18.11.19 onwards.

  
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- Cc to
1. Principal office
  2. Mechanical HOD
  3. Notice board
  4. Class Teacher



# IDEAL INSTITUTE OF TECHNOLOGY

(Approved by AICTE, New Delhi & Affiliated To JNTUK, Kakinada)

Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 11.11.19

## Faculties Allotted for A.Y 2018-19

S.No	Subject	Faculty Name	Designation	Signature
1	Design and Machine Members	K Karuna	Assistant Professor	
2	Integral Combustion Engines	SK Adamsha	Assistant Professor	
3	Dynamics of Machines	M Dedeepya	Assistant Professor	
4	Thermodynamics	N Raja Naidu	Assistant Professor	
5	Refrigeration and Air Conditioning	R Vijaya Lakshmi	Assistant Professor	

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(Approved by AICTE, New Delhi & Affiliated To JNTUK, Kakinada)

Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 11.11.19

The list of topics that will be covered in GATE coaching for III year B.Tech students are as follows:

## **Engineering Mechanics:**

Free-body diagrams and equilibrium; friction and its applications including rolling friction, belt-pulley, brakes, clutches, screw jack, wedge, vehicles, etc.; trusses and frames; virtual work; kinematics and dynamics of rigid bodies in plane motion; impulse and momentum (linear and angular) and energy formulations; Lagrange's equation.

## **Mechanics of Materials:**

Stress and strain, elastic constants, Poisson's ratio; Mohr's circle for plane stress and plane strain; thin cylinders; shear force and bending moment diagrams; bending and shear stresses; concept of shear centre; deflection of beams; torsion of circular shafts; Euler's theory of columns; energy methods; thermal stresses; strain gauges and rosettes; testing of materials with universal testing machine; testing of hardness and impact strength.

## **Theory of Machines:**

Displacement, velocity and acceleration analysis of plane mechanisms; dynamic analysis of linkages; cams; gears and gear trains; flywheels and governors; balancing of reciprocating and rotating masses; gyroscope. Vibrations: Free and forced vibration of single degree of freedom systems, effect of damping; vibration isolation; resonance; critical speeds of shafts.

## **Fluid Mechanics:**

Fluid properties; fluid statics, 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; basics of compressible fluid flow.



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Vidyut Nagar, Kakinada-533003 (A.P.)

## 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, StefanBoltzmann law, Wien's displacement law, black and grey surfaces, view factors, radiation network analysis

  
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# IDEAL INSTITUTE OF TECHNOLOGY

(Approved by AICTE, New Delhi & Affiliated To JNTUK, Kakinada)

Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 18.01.2020

## Report

**Name of the Event:** Coaching for Competitive Exams

**Date:** 19.11.2019 to 12.01.2020

The management of IDEAL Institute of Technology has conducted coaching classes for III B.Tech students for GATE and other competitive examinations. As per the directions given by the management the department of **Mechanical Engineering** has planned to conduct coaching classes on the working days from 4 P.M to 6 P.M daily.

As per the revised schedule the outcome of the program focused on the fundamentals in various subjects and provided relevant information to score well. The students have expressed immense satisfaction with the coaching programme.

**Number of Participants:** 65

**Details of Resource Person:**

S.No	Subject	Faculty Name	Designation
1	Control Systems	D Madhu	Assistant Professor
2	Circuit Analysis	M Jagadesh	Assistant Professor
3	Electrical Machines	ChVinod Kumar	Associate Professor
4	Electromagnetic fields	K VenkateswarRao	Assistant Professor
5	Signals and Systems	G Ravi Kumar	Assistant Professor

  
HOD



# IDEAL INSTITUTE OF TECHNOLOGY

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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 11.11.19

## CIRCULAR

All the III-I semester Electronics and Communication students are hereby inform that, our Electronics and Communication Engineering department planning to conduct special classes for GATE & Other competitive examinations. So in this connection all the students are required to utilise this opportunity and attend classes regularly without fail. Timings for the above classes will be 4pm-6pm every day from 18.11.19 onwards.

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- Cc to
1. Principal office
  2. Electronics and Communication Engineering HOD
  3. Notice board
  4. Class Teacher



# IDEAL INSTITUTE OF TECHNOLOGY

(Approved by AICTE, New Delhi & Affiliated To JNTUK, Kakinada)

Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 11.11.19

## Faculties Allotted for A.Y 2018-19

S.No	Subject	Faculty Name	Designation	Signature
1	Control Systems	D Madhu	Assistant Professor	<i>D. Madhu</i>
2	Network Analysis	M Jagadesh	Assistant Professor	<i>M. Jagadesh</i>
3	Digital Communications	B V Kalyan Ram	Assistant Professor	<i>B. V. Kalyan Ram</i>
4	Continuous Time Signals	Ch Venkata Prakash	Assistant Professor	<i>Ch. V. Prakash</i>
5	Electromagnetics	D Vijaya Lakshmi	Assistant Professor	<i>D. Vijaya Lakshmi</i>

*T. S. R.*  
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# IDEAL INSTITUTE OF TECHNOLOGY

(Approved by AICTE, New Delhi & Affiliated To JNTUK, Kakinada)

Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 11.11.19

The list of topics that will be covered in GATE coaching for III year B.Tech students are as follows:

## **Control Systems:**

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

## **Network analysis:**

Node and mesh analysis, superposition, Thevenin's theorem, Norton's theorem, reciprocity. Sinusoidal steady state analysis: phasors, complex power, maximum power transfer. Time and frequency domain analysis of linear circuits: RL, RC and RLC circuits, solution of network equations using Laplace transform. Linear 2-port network parameters, wye-delta transformation.

## **Digital communications:**

PCM, DPCM, digital modulation schemes (ASK, PSK, FSK, QAM), bandwidth, inter-symbol interference, MAP, ML detection, matched filter receiver, SNR and BER. Fundamentals of error correction, Hamming codes, CRC.

## **Continuous-time signals:**

Fourier series and Fourier transform, sampling theorem and applications.

## **Electromagnetics**

### **Maxwell's equations:**

Differential and integral forms and their interpretation, boundary conditions, wave equation, Poynting vector.

### **Plane waves and properties:**

Reflection and refraction, polarization, phase and group velocity, propagation through various media, skin depth.



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## Transmission lines:

Equations, characteristic impedance, impedance matching, impedance transformation, S-parameters, Smith chart. Rectangular and circular waveguides, light propagation in optical fibers, dipole and monopole antennas, linear antenna arrays.

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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 18.01.2020

## Report

**Name of the Event:** Coaching for Competitive Exams

**Date:** 19.11.2019 to 12.01.2020

The management of IDEAL Institute of Technology has conducted coaching classes for III B.Tech students for GATE and other competitive examinations. As per the directions given by the management the department of **Electronics and Communication Engineering** has planned to conduct coaching classes on the working days from 4 P.M to 6 P.M daily.

As per the revised schedule the outcome of the program focused on the fundamentals in various subjects and provided relevant information to score well. The students have expressed immense satisfaction with the coaching programme.

**Number of Participants:** 63

**Details of Resource Person:**

S.No	Subject	Faculty Name	Designation
1	Control Systems	D Madhu	Assistant Professor
2	Network Analysis	M Jagadesh	Assistant Professor
3	Digital Communications	B V Kalyan Ram	Assistant Professor
4	Continuous Time Signals	ChVenkataPrakash	Assistant Professor
5	Electromagnetics	D Vijaya Lakshmi	Assistant Professor

  
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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 11.11.19

## CIRCULAR

All the III-I semester Computer Science students are hereby inform that, our Computer Science Engineering department planning to conduct special classes for GATE & Other competitive examinations. So in this connection all the students are required to utilise this opportunity and attend classes regularly without fail. Timings for the above classes will be 4pm-6pm every day from 18.11.19 onwards.

  
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- Cc to
1. Principal office
  2. Computer Science Engineering HOD
  3. Notice board
  4. Class Teacher



# IDEAL INSTITUTE OF TECHNOLOGY

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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 11.11.19

## Faculties Allotted for A.Y 2018-19

S.No	Subject	Faculty Name	Designation	Signature
1	Computer Networks	S Surya Sri	Assistant Professor	
2	Operating Systems	M Jayasree	Assistant Professor	
3	Compiler Design	R V V Gani Lakshmi	Assistant Professor	
4	Digital Logic Design	M S R S Prasad	Assistant Professor	
5	Database Management System	S Jyothirmayee	Assistant Professor	

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# IDEAL INSTITUTE OF TECHNOLOGY

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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 11.11.19

The list of topics that will be covered in GATE coaching for III year B.Tech students are as follows:

## **Computer Networks:**

OSI and TCP/IP Protocol Stacks; Basics of packet, circuit and virtual circuitswitching; Data link layer: framing, error detection, Medium Access Control, Ethernet bridging; Routing protocols: shortest path, flooding, distance vector and link state routing; Fragmentation and IP addressing, IPv4, CIDR notation, Basics of IP support protocols (ARP, DHCP, ICMP), Network Address Translation (NAT); Transport layer: flow control and congestion control, UDP, TCP, sockets; Application layer protocols: DNS, SMTP, HTTP, FTP, Email.

## **Operating System:**

System calls, processes, threads, inter-process communication, concurrency and synchronization. Deadlock. CPU and I/O scheduling. Memory management and virtual memory. File systems.

## **Compiler Design:**

Lexical analysis, parsing, syntax-directed translation. Runtime environments. Intermediate code generation. Local optimisation, Data flow analyses: constant propagation, liveness analysis, common subexpression elimination

## **Digital Logic Design:**

Boolean algebra, Combinational and sequential circuits, Minimization, Number representations and computer arithmetic (fixed and floating point).

## **Database Management Systems:**

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.

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## Report

**Name of the Event:** Coaching for Competitive Exams

**Date:** 19.11.2019 to 12.01.2020

The management of IDEAL Institute of Technology has conducted coaching classes for III B.Tech students for GATE and other competitive examinations. As per the directions given by the management the **Computer Science Engineering** department has planned to conduct coaching classes on the working days from 4 P.M to 6 P.M daily.

As per the revised schedule the outcome of the program focused on the fundamentals in various subjects and provided relevant information to score well. The students have expressed immense satisfaction with the coaching programme.

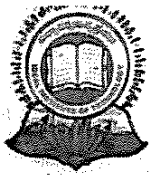
**Number of Participants:** 60

**Details of Resource Person:**

S.No	Subject	Faculty Name	Designation
1	Computer Networks	S Surya Sri	Assistant Professor
2	Operating Systems	M Jayasree	Assistant Professor
3	Compiler Design	R V VGani Lakshmi	Assistant Professor
4	Digital Logic Design	M S R S Prasad	Assistant Professor
5	Database Management System	S Jyothirmayee	Assistant Professor

  
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**A.Y:2019-20**



# IDEAL INSTITUTE OF TECHNOLOGY

(Approved by AICTE, New Delhi & Affiliated To JNTUK, Kakinada)

Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 09.11.20

## CIRCULAR

All the III-I semester Civil students are hereby inform that, our Civil Engineering department planning to conduct special classes for GATE & Other competitive examinations. So in this connection all the students are required to utilise this opportunity and attend classes regularly without fail. Timings for the above classes will be 4pm-6pm every day from 16.11.20 onwards.

  
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- Cc to
1. Principal office
  2. Civil HOD
  3. Notice board
  4. Class Teacher



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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 09.11.20

## Faculties Allotted for A.Y 2019-20

S.No	Subject	Faculty Name	Designation	Signature
1	Geo Technical Engineering	B Leela Krishna	Assistant Professor	
2	Environmental Engineering	R Gayatri Devi	Assistant Professor	
3	Fluid Mechanics	T B N Satya Sirisha	Assistant Professor	
4	Water Resource Engineering	Nazeer Ahmed	Assistant Professor	
5	Transport and Surveying	M Venkata Rao	Assistant Professor	

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# IDEAL INSTITUTE OF TECHNOLOGY

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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 09.11.20

The list of topics that will be covered in GATE coaching for III year B.Tech students are as follows:

## **Geotechnical Engineering:**

Three-phase system and phase relationships, index properties; Unified and Indian standard soil classification system; Permeability - one dimensional flow, Seepage through soils – two - dimensional flow, flow nets, uplift pressure, piping, capillarity, seepage force; Principle of effective stress and quicksand condition; Compaction of soils; One- dimensional consolidation, time rate of consolidation; Shear Strength, Mohr's circle, effective and total shear strength parameters, Stress-Strain characteristics of clays and sand; Stress paths.

## **Environmental Engineering:**

Water and Waste Water Quality and Treatment: Basics of water quality standards – Physical, chemical and biological parameters; Water quality index; Unit processes and operations; Water requirement; Water distribution system; Drinking water treatment. Sewerage system design, quantity of domestic wastewater, primary and secondary treatment. Effluent discharge standards; Sludge disposal; Reuse of treated sewage for different applications.

## **Fluid Mechanics:**

Properties of fluids, fluid statics; Continuity, momentum and energy equations and their applications; Potential flow, Laminar and turbulent flow; Flow in pipes, pipe networks; Concept of boundary layer and its growth; Concept of lift and drag.

## **Water Resources Engineering**

### **Fluid Mechanics:**

Properties of fluids, fluid statics; Continuity, momentum and energy equations and their applications; Potential flow, Laminar and turbulent flow; Flow in pipes, pipe networks; Concept of boundary layer and its growth; Concept of lift and drag.

### **Hydraulics:**

Forces on immersed bodies; Flow measurement in channels and pipes; Dimensional analysis and hydraulic similitude; Channel Hydraulics - Energy-depth relationships, specific energy, critical flow, hydraulic jump, uniform flow, gradually varied flow and water surface profiles.

### **Hydrology:**

Hydrologic cycle, precipitation, evaporation, evapo-transpiration, watershed, infiltration, unit hydrographs, hydrograph analysis, reservoir capacity, flood estimation and routing, surface



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runoff models, ground water hydrology - steady state well hydraulics and aquifers; Application of Darcy's Law.

## **Irrigation:**

Types of irrigation systems and methods; Crop water requirements - Duty, delta, evapotranspiration; Gravity Dams and Spillways; Lined and unlined canals, Design of weirs on permeable foundation; cross drainage structures.

## **Transportation and Surveying:**

Geometric design of highways - cross-sectional elements, sight distances, horizontal and vertical alignments. Geometric design of railway Track – Speed and Cant. Concept of airport runway length, calculations and corrections; taxiway and exit taxiway design.

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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 23.01.2021

## Report

**Name of the Event:** Coaching for Competitive Exams

**Date:** 16.11.2020 to 09.01.2021

The management of IDEAL Institute of Technology has conducted coaching classes for III B.Tech students for GATE and other competitive examinations. As per the directions given by the management the department of **Civil Engineering** has planned to conduct coaching classes on the working days from 4 P.M to 6 P.M daily.

As per the revised schedule the outcome of the program focused on the fundamentals in various subjects and provided relevant information to score well. The students have expressed immense satisfaction with the coaching programme.

**Number of Participants:** 56

**Details of Resource Person:**

S.No	Subject	Faculty Name	Designation
1	Geo Technical Engineering	B Leela Krishna	Assistant Professor
2	Environmental Engineering	R Gayatri Devi	Assistant Professor
3	Fluid Mechanics	T B N Satya Sirisha	Assistant Professor
4	Water Resource Engineering	Nazeer Ahmed	Assistant Professor
5	Transport and Surveying	M Venkata Rao	Assistant Professor

  
HOD



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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 09.11.20

## CIRCULAR

All the III-I semester Electrical and Electronics students are hereby inform that, our Electrical and Electronics Engineering department planning to conduct special classes for GATE & Other competitive examinations. So in this connection all the students are required to utilise this opportunity and attend classes regularly without fail. Timings for the above classes will be 4pm-6pm every day from 16.11.20 onwards.

  
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- Cc to
1. Principal office
  2. Electrical and Electronic Engineering HOD
  3. Notice board
  4. Class Teacher



# IDEAL INSTITUTE OF TECHNOLOGY

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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 09.11.20

## Faculties Allotted for A.Y 2019-20

S.No	Subject	Faculty Name	Designation	Signature
1	Control Systems	D Madhu	Assistant Professor	D. Madhu
2	Circuit Analysis	M Jagadesh	Assistant Professor	M Jagadesh
3	Electrical Machines	Ch Vinod Kumar	Associate Professor	Ch. Vinod Kumar
4	Power Systems	K Venkateswar Rao	Assistant Professor	K Venkateswar Rao
5	Electric Circuits	A Ramesh	Assistant Professor	A Ramesh

  
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# IDEAL INSTITUTE OF TECHNOLOGY

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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 09.11.20

The list of topics that will be covered in GATE coaching for III year B.Tech students are as follows:

## **Control Systems:**

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

## **Network analysis:**

Node and mesh analysis, superposition, Thevenin's theorem, Norton's theorem, reciprocity. Sinusoidal steady state analysis: phasors, complex power, maximum power transfer. Time and frequency domain analysis of linear circuits: RL, RC and RLC circuits, solution of network equations using Laplace transform. Linear 2-port network parameters, wye-delta transformation.

## **Electrical Machines:**

Single phase transformer: Equivalent circuit, phasor diagram, open circuit and short circuit tests, regulation and efficiency; Three-phase transformers: connections, vector groups, parallel operation; Auto-transformer, Electromechanical energy conversion principles; DC machines: separately excited, series and shunt, motoring and generating mode of operation and their characteristics, speed control of dc motors; Three-phase induction machines: principle of operation, types, performance, torque-speed characteristics, no-load and blocked-rotor tests, equivalent circuit, starting and speed control; Operating principle of single-phase induction motors; Synchronous machines: cylindrical and salient pole machines, performance and characteristics, regulation and parallel operation of generators, starting of synchronous motors; Types of losses and efficiency calculations of electric machines

## **Power Systems:**

Basic concepts of electrical power generation, ac and dc transmission concepts, Models and performance of transmission lines and cables, Economic Load Dispatch (with and without considering transmission losses), Series and shunt compensation, Electric field distribution and insulators, Distribution systems, Per-unit quantities, Bus admittance matrix, Gauss-Seidel and Newton-Raphson load flow methods, Voltage and Frequency control, Power factor correction, Symmetrical components, Symmetrical and unsymmetrical fault analysis, Principles of over-current, differential, directional and distance protection; Circuit breakers, System stability concepts, Equal area criterion.



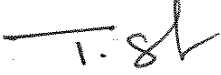
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## Electric circuits

**Network elements:** Ideal voltage and current sources, dependent sources, R, L, C, M elements; Network solution methods: KCL, KVL, Node and Mesh analysis; Network Theorems: Thevenin's, Norton's, Superposition and Maximum Power Transfer theorem; Transient response of dc and ac networks, sinusoidal steady-state analysis, resonance, two port networks, balanced three phase circuits, star-delta transformation, complex power and power factor in ac circuits.

  
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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 23.01.2021

## Report

**Name of the Event:** Coaching for Competitive Exams

**Date:** 16.11.2020 to 09.01.2021

The management of IDEAL Institute of Technology has conducted coaching classes for III B.Tech students for GATE and other competitive examinations. As per the directions given by the management the department of **Electrical and Electronics Engineering** has planned to conduct coaching classes on the working days from 4 P.M to 6 P.M daily.

As per the revised schedule the outcome of the program focused on the fundamentals in various subjects and provided relevant information to score well. The students have expressed immense satisfaction with the coaching programme.

**Number of Participants:** 33

**Details of Resource Person:**

S.No	Subject	Faculty Name	Designation
1	Control Systems	D Madhu	Assistant Professor
2	Circuit Analysis	M Jagadesh	Assistant Professor
3	Electrical Machines	Ch Vinod Kumar	Associate Professor
4	Power Systems	K Venkateswar Rao	Assistant Professor
5	Electric Circuits	A Ramesh	Assistant Professor

*A Ramesh*

HOD



# IDEAL INSTITUTE OF TECHNOLOGY

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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 09.11.20

## CIRCULAR

All the III-I semester Mechanical students are hereby inform that, our Mechanical Engineering department planning to conduct special classes for GATE & Other competitive examinations. So in this connection all the students are required to utilise this opportunity and attend classes regularly without fail. Timings for the above classes will be 4pm-6pm every day from 16.11.20 onwards.

  
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- Cc to
1. Principal office
  2. Mechanical HOD
  3. Notice board
  4. Class Teacher



# IDEAL INSTITUTE OF TECHNOLOGY

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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 09.11.20

## Faculties Allotted for A.Y 2019-20

S.No	Subject	Faculty Name	Designation	Signature
1	Design and Machine Members	K Karuna	Assistant Professor	
2	Integral Combustion Engines	R Vijaya Lakshmi	Assistant Professor	
3	Dynamics of Machines	M Dedeepya	Assistant Professor	
4	Applied Thermodynamics	N Raja Naidu	Assistant Professor	
5	Engineering Mechanics	D DharmaKumar	Assistant Professor	

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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 09.11.20

The list of topics that will be covered in GATE coaching for III year B.Tech students are as follows:

## **Engineering Mechanics:**

Free-body diagrams and equilibrium; friction and its applications including rolling friction, belt-pulley, brakes, clutches, screw jack, wedge, vehicles, etc.; trusses and frames; virtual work; kinematics and dynamics of rigid bodies in plane motion; impulse and momentum (linear and angular) and energy formulations; Lagrange's equation.

## **Mechanics of Materials:**

Stress and strain, elastic constants, Poisson's ratio; Mohr's circle for plane stress and plane strain; thin cylinders; shear force and bending moment diagrams; bending and shear stresses; concept of shear centre; deflection of beams; torsion of circular shafts; Euler's theory of columns; energy methods; thermal stresses; strain gauges and rosettes; testing of materials with universal testing machine; testing of hardness and impact strength.

## **Theory of Machines:**

Displacement, velocity and acceleration analysis of plane mechanisms; dynamic analysis of linkages; cams; gears and gear trains; flywheels and governors; balancing of reciprocating and rotating masses; gyroscope. Vibrations: Free and forced vibration of single degree of freedom systems, effect of damping; vibration isolation; resonance; critical speeds of shafts.

## **Fluid Mechanics:**

Fluid properties; fluid statics, 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; basics of compressible fluid flow.



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Vidyut Nagar, Kakinada-533003 (A.P.)

## 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

  
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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 23.01.2021

## Report

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**Date:** 16.11.2020 to 09.01.2021

The management of IDEAL Institute of Technology has conducted coaching classes for III B.Tech students for GATE and other competitive examinations. As per the directions given by the management the department of **Mechanical Engineering** has planned to conduct coaching classes on the working days from 4 P.M to 6 P.M daily.

As per the revised schedule the outcome of the program focused on the fundamentals in various subjects and provided relevant information to score well. The students have expressed immense satisfaction with the coaching programme.

**Number of Participants:** 60

**Details of Resource Person:**

S.No	Subject	Faculty Name	Designation
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2	Integral Combustion Engines	R Vijaya Lakshmi	Assistant Professor
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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 09.11.20

## CIRCULAR

All the III-I semester Electronics and Communication students are hereby inform that, our Electronics and Communication Engineering department planning to conduct special classes for GATE & Other competitive examinations. So in this connection all the students are required to utilise this opportunity and attend classes regularly without fail. Timings for the above classes will be 4pm-6pm every day from 16.11.20 onwards.

  
PRINCIPAL

- Cc to
1. Principal office
  2. Electronics and Communication Engineering HOD
  3. Notice board
  4. Class Teacher



# IDEAL INSTITUTE OF TECHNOLOGY

(Approved by AICTE, New Delhi & Affiliated To JNTUK, Kakinada)

Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 09.11.20

## Faculties Allotted for A.Y 2019-20

S.No	Subject	Faculty Name	Designation	Signature
1	Control Systems	D Madhu	Assistant Professor	D. Madhu
2	Network Analysis	M Jagadesh	Assistant Professor	M. Jagadesh
3	Digital Communications	B V Kalyan Ram	Assistant Professor	B. V. Kalyan Ram
4	Discrete Time Signals	Ch Venkata Prakash	Assistant Professor	Ch. V. Prakash
5	Digital Circuits	D Vijaya Lakshmi	Assistant Professor	D. Vijaya Lakshmi

  
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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 09.11.20

The list of topics that will be covered in GATE coaching for III year B.Tech students are as follows:

## **Control Systems:**

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

## **Network analysis:**

Node and mesh analysis, superposition, Thevenin's theorem, Norton's theorem, reciprocity. Sinusoidal steady state analysis: phasors, complex power, maximum power transfer. Time and frequency domain analysis of linear circuits: RL, RC and RLC circuits, solution of network equations using Laplace transform. Linear 2-port network parameters, wye-delta transformation.

## **Digital communications:**

PCM, DPCM, digital modulation schemes (ASK, PSK, FSK, QAM), bandwidth, inter-symbol interference, MAP, ML detection, matched filter receiver, SNR and BER. Fundamentals of error correction, Hamming codes, CRC.

## **Discrete-time signals:**

DTFT, DFT, z-transform, discrete-time processing of continuous-time signals. LTI systems: definition and properties, causality, stability, impulse response, convolution, poles and zeroes, frequency response, group delay, phase delay

## **Digital Circuits:**

Number representations: binary, integer and floating-point- numbers. Combinatorial circuits: Boolean algebra, minimization of functions using Boolean identities and Karnaugh map, logic gates and their static CMOS implementations, arithmetic circuits, code converters, multiplexers, decoders.

  
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# IDEAL INSTITUTE OF TECHNOLOGY

(Approved by AICTE, New Delhi & Affiliated To JNTUK, Kakinada)

Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 23.01.2021

## Report

**Name of the Event:** Coaching for Competitive Exams

**Date:** 16.11.2020 to 09.01.2021

The management of IDEAL Institute of Technology has conducted coaching classes for III B.Tech students for GATE and other competitive examinations. As per the directions given by the management the **Electronics and Communication Engineering** department has planned to conduct coaching classes on the working days from 4 P.M to 6 P.M daily.

As per the revised schedule the outcome of the program focused on the fundamentals in various subjects and provided relevant information to score well. The students have expressed immense satisfaction with the coaching programme.

**Number of Participants:** 73

**Details of Resource Person:**

S.No	Subject	Faculty Name	Designation
1	Control Systems	D Madhu	Assistant Professor
2	Network Analysis	M Jagadesh	Assistant Professor
3	Digital Communications	B V Kalyan Ram	Assistant Professor
4	Discrete Time Signals	Ch Venkata Prakash	Assistant Professor
5	Digital Circuits	D Vijaya Lakshmi	Assistant Professor

  
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# IDEAL INSTITUTE OF TECHNOLOGY

(Approved by AICTE, New Delhi & Affiliated To JNTUK, Kakinada)

Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 09.11.20

## CIRCULAR

All the III-I semester Computer Science students are hereby inform that, our Computer Science Engineering department planning to conduct special classes for GATE & Other competitive examinations. So in this connection all the students are required to utilise this opportunity and attend classes regularly without fail. Timings for the above classes will be 4pm-6pm every day from 16.11.20 onwards.

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- Cc to
1. Principal office
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# IDEAL INSTITUTE OF TECHNOLOGY

(Approved by AICTE, New Delhi & Affiliated To JNTUK, Kakinada)

Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 09.11.20

## Faculties Allotted for A.Y 2019-20

S.No	Subject	Faculty Name	Designation	Signature
1	Computer Networks	V Satya Sri	Assistant Professor	
2	Operating Systems	P Sai Sowjanya	Assistant Professor	
3	Compiler Design	R V V Gani Lakshmi	Assistant Professor	
4	Theory of Computation	M S R S Prasad	Assistant Professor	
5	Database Management System	S Jyothirmayee	Assistant Professor	

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# IDEAL INSTITUTE OF TECHNOLOGY

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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 09.11.20

The list of topics that will be covered in GATE coaching for III year B.Tech students are as follows:

## **Computer Networks:**

OSI and TCP/IP Protocol Stacks; Basics of packet, circuit and virtual circuitswitching; Data link layer: framing, error detection, Medium Access Control, Ethernet bridging; Routing protocols: shortest path, flooding, distance vector and link state routing; Fragmentation and IP addressing, IPv4, CIDR notation, Basics of IP support protocols (ARP, DHCP, ICMP), Network Address Translation (NAT); Transport layer: flow control and congestion control, UDP, TCP, sockets; Application layer protocols: DNS, SMTP, HTTP, FTP, Email.

## **Operating System:**

System calls, processes, threads, inter-process communication, concurrency and synchronization. Deadlock. CPU and I/O scheduling. Memory management and virtual memory. File systems.

## **Compiler Design:**

Lexical analysis, parsing, syntax-directed translation. Runtime environments. Intermediate code generation. Local optimisation, Data flow analyses: constant propagation, liveness analysis, common subexpression elimination

## **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.

## **Database Management Systems:**

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.

  
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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 23.01.2021

## Report

**Name of the Event:** Coaching for Competitive Exams

**Date:** 16.11.2020 to 09.01.2021

The management of IDEAL Institute of Technology has conducted coaching classes for III B.Tech students for GATE and other competitive examinations. As per the directions given by the management the **Computer Science Engineering** department has planned to conduct coaching classes on the working days from 4 P.M to 6 P.M daily.

As per the revised schedule the outcome of the program focused on the fundamentals in various subjects and provided relevant information to score well. The students have expressed immense satisfaction with the coaching programme.

**Number of Participants:** 60

**Details of Resource Person:**

S.No	Subject	Faculty Name	Designation
1	Computer Networks	V Satya Sri	Assistant Professor
2	Operating Systems	P Sai Sowjanya	Assistant Professor
3	Compiler Design	R V V Gani Lakshmi	Assistant Professor
4	Theory of Computation	M S R S Prasad	Assistant Professor
5	Database Management System	S Jyothirmayee	Assistant Professor

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**A.Y:2020-21**



# IDEAL INSTITUTE OF TECHNOLOGY

(Approved by AICTE, New Delhi & Affiliated To JNTUK, Kakinada)

Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 08.11.21

## CIRCULAR

All the III-I semester Civil students are hereby inform that, our Civil Engineering department planning to conduct special classes for GATE & Other competitive examinations. So in this connection all the students are required to utilise this opportunity and attend classes regularly without fail. Timings for the above classes will be 4pm-6pm every day from 15.11.21 onwards.

  
PRINCIPAL

- Cc to
1. Principal office
  2. Civil HOD
  3. Notice board
  4. Class Teacher



# IDEAL INSTITUTE OF TECHNOLOGY

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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 08.11.21

## Faculties Allotted for A.Y 2020-21

S.No	Subject	Faculty Name	Designation	Signature
1	Geo Technical Engineering	M Geeta Sri	Assistant Professor	M. Geeta Sri
2	Environmental Engineering	V Taranga	Assistant Professor	V.T.D. Kalyani
3	Fluid Mechanics	T B N Satya Sirisha	Assistant Professor	T.B.N. Satya Sirisha
4	Structural Analysis	Nazeer Ahmed	Assistant Professor	Nazeer Ahmed
5	Steel Structures	D Ramya	Assistant Professor	D. Ramya

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# IDEAL INSTITUTE OF TECHNOLOGY

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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 08.11.21

The list of topics that will be covered in GATE coaching for III year B.Tech students are as follows:

## **Geotechnical Engineering:**

Three-phase system and phase relationships, index properties; Unified and Indian standard soil classification system; Permeability - one dimensional flow, Seepage through soils – two - dimensional flow, flow nets, uplift pressure, piping, capillarity, seepage force; Principle of effective stress and quicksand condition; Compaction of soils; One- dimensional consolidation, time rate of consolidation; Shear Strength, Mohr's circle, effective and total shear strength parameters, Stress-Strain characteristics of clays and sand; Stress paths.

## **Environmental Engineering:**

Water and Waste Water Quality and Treatment: Basics of water quality standards – Physical, chemical and biological parameters; Water quality index; Unit processes and operations; Water requirement; Water distribution system; Drinking water treatment. Sewerage system design, quantity of domestic wastewater, primary and secondary treatment. Effluent discharge standards; Sludge disposal; Reuse of treated sewage for different applications.

## **Fluid Mechanics:**

Properties of fluids, fluid statics; Continuity, momentum and energy equations and their applications; Potential flow, Laminar and turbulent flow; Flow in pipes, pipe networks; Concept of boundary layer and its growth; Concept of lift and drag.

## **Steel Structures:**

Working stress and Limit state design concepts; Design of tension and compression members, beams and beam- columns, column bases; Connections - simple and eccentric, beam-column connections, plate girders and trusses; Concept of plastic analysis -beams and frames.

## **Steel Structures:**

Working stress and Limit state design concepts; Design of tension and compression members, beams and beam- columns, column bases; Connections - simple and eccentric, beam-column connections, plate girders and trusses; Concept of plastic analysis -beams and frames.

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# IDEAL INSTITUTE OF TECHNOLOGY

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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 22.01.2022

## Report

**Name of the Event:** Coaching for Competitive Exams

**Date:** 15.11.2021 to 08.01.2022

The management of IDEAL Institute of Technology has conducted coaching classes for III B.Tech students for GATE and other competitive examinations. As per the directions given by the management the department of **Civil Engineering** has planned to conduct coaching classes on the working days from 4 P.M to 6 P.M daily.

As per the revised schedule the outcome of the program focused on the fundamentals in various subjects and provided relevant information to score well. The students have expressed immense satisfaction with the coaching programme.

**Number of Participants:** 52

**Details of Resource Person:**

S.No	Subject	Faculty Name	Designation
1	Geo Technical Engineering	M Geeta Sri	Assistant Professor
2	Environmental Engineering	V Taranga	Assistant Professor
3	Fluid Mechanics	T B N Satya Sirisha	Assistant Professor
4	Structural Analysis	Nazeer Ahmed	Assistant Professor
5	Steel Structures	D Ramya	Assistant Professor

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# IDEAL INSTITUTE OF TECHNOLOGY

(Approved by AICTE, New Delhi & Affiliated To JNTUK, Kakinada)

Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 08.11.21

## CIRCULAR

All the III-I semester Electrical and Electronics students are hereby inform that, our Electrical and Electronics Engineering department planning to conduct special classes for GATE & Other competitive examinations. So in this connection all the students are required to utilise this opportunity and attend classes regularly without fail. Timings for the above classes will be 4pm-6pm every day from 15.11.21 onwards.

PRINCIPAL

- Cc to
1. Principal office
  2. Electrical and Electronic Engineering HOD
  3. Notice board
  4. Class Teacher



# IDEAL INSTITUTE OF TECHNOLOGY

(Approved by AICTE, New Delhi & Affiliated To JNTUK, Kakinada)

Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 08.11.21

## Faculties Allotted for A.Y 2020-21

S.No	Subject	Faculty Name	Designation	Signature
1	Control Systems	D Madhu	Assistant Professor	<i>D. Madhu</i>
2	Circuit Analysis	M Jagadesh	Assistant Professor	<i>M. Jagadesh</i>
3	Electrical Machines	A Ramesh	Assistant Professor	<i>A. Ramesh</i>
4	Power Systems	N Raja Veni	Assistant Professor	<i>N. Rajaveni</i>
5	Power Electronics	D Lalitha Kumari	Assistant Professor	<i>D. Lalitha Kumari</i>

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# IDEAL INSTITUTE OF TECHNOLOGY

(Approved by AICTE, New Delhi & Affiliated To JNTUK, Kakinada)

Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 08.11.21

The list of topics that will be covered in GATE coaching for III year B.Tech students are as follows:

## **Control Systems:**

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

## **Network analysis:**

Node and mesh analysis, superposition, Thevenin's theorem, Norton's theorem, reciprocity. Sinusoidal steady state analysis: phasors, complex power, maximum power transfer. Time and frequency domain analysis of linear circuits: RL, RC and RLC circuits, solution of network equations using Laplace transform. Linear 2-port network parameters, wye-delta transformation.

## **Electrical Machines:**

Single phase transformer: Equivalent circuit, phasor diagram, open circuit and short circuit tests, regulation and efficiency; Three-phase transformers: connections, vector groups, parallel operation; Auto-transformer, Electromechanical energy conversion principles; DC machines: separately excited, series and shunt, motoring and generating mode of operation and their characteristics, speed control of dc motors; Three-phase induction machines: principle of operation, types, performance, torque-speed characteristics, no-load and blocked-rotor tests, equivalent circuit, starting and speed control; Operating principle of single-phase induction motors; Synchronous machines: cylindrical and salient pole machines, performance and characteristics, regulation and parallel operation of generators, starting of synchronous motors; Types of losses and efficiency calculations of electric machines

## **Power Systems:**

Basic concepts of electrical power generation, ac and dc transmission concepts, Models and performance of transmission lines and cables, Economic Load Dispatch (with and without considering transmission losses), Series and shunt compensation, Electric field distribution and insulators, Distribution systems, Per-unit quantities, Bus admittance matrix, Gauss-Seidel and Newton-Raphson load flow methods, Voltage and Frequency control, Power factor correction, Symmetrical components, Symmetrical and unsymmetrical fault analysis, Principles of over-current, differential, directional and distance protection; Circuit breakers, System stability concepts, Equal area criterion.



# IDEAL INSTITUTE OF TECHNOLOGY

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Vidyut Nagar, Kakinada-533003 (A.P.)

## Power Electronics:

Static V-I characteristics and firing/gating circuits for Thyristor, MOSFET, IGBT; DC to DC conversion: Buck, Boost and Buck-Boost Converters; Single and three-phase configuration of uncontrolled rectifiers; Voltage and Current commutated Thyristor based converters; Bidirectional ac to dc voltage source converters; Magnitude and Phase of line current harmonics for uncontrolled and thyristor based converters; Power factor and Distortion Factor of ac to dc converters; Single-phase and three-phase voltage and current source inverters, sinusoidal pulse width modulation.

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# IDEAL INSTITUTE OF TECHNOLOGY

(Approved by AICTE, New Delhi & Affiliated To JNTUK, Kakinada)

Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 22.01.2022

## Report

**Name of the Event:** Coaching for Competitive Exams

**Date:** 15.11.2021 to 08.01.2022

The management of IDEAL Institute of Technology has conducted coaching classes for III B.Tech students for GATE and other competitive examinations. As per the directions given by the management the department of **Electrical and Electronics Engineering** has planned to conduct coaching classes on the working days from 4 P.M to 6 P.M daily.

As per the revised schedule the outcome of the program focused on the fundamentals in various subjects and provided relevant information to score well. The students have expressed immense satisfaction with the coaching programme.

**Number of Participants:** 54

**Details of Resource Person:**

S.No	Subject	Faculty Name	Designation
1	Control Systems	D Madhu	Assistant Professor
2	Circuit Analysis	M Jagadesh	Assistant Professor
3	Electrical Machines	A Ramesh	Assistant Professor
4	Power Systems	N Raja Veni	Assistant Professor
5	Power Electronics	D Lalitha Kumari	Assistant Professor

  
HOD



# IDEAL INSTITUTE OF TECHNOLOGY

(Approved by AICTE, New Delhi & Affiliated To JNTUK, Kakinada)

Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 08.11.21

## CIRCULAR

All the III-I semester Mechanical students are hereby inform that, our Mechanical Engineering department planning to conduct special classes for GATE & Other competitive examinations. So in this connection all the students are required to utilise this opportunity and attend classes regularly without fail. Timings for the above classes will be 4pm-6pm every day from 15.11.21 onwards.

  
PRINCIPAL

- Cc to
1. Principal office
  2. Mechanical HOD
  3. Notice board
  4. Class Teacher



# IDEAL INSTITUTE OF TECHNOLOGY

(Approved by AICTE, New Delhi & Affiliated To JNTUK, Kakinada)

Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 08.11.21

## Faculties Allotted for A.Y 2020-21

S.No	Subject	Faculty Name	Designation	Signature
1	Design and Machine Members	J Lalitha Prathyusha	Assistant Professor	
2	Integral Combustion Engines	R Vijaya Lakshmi	Assistant Professor	
3	Dynamics of Machines	N Raghuram	Assistant Professor	
4	Heat Transfer	N Sandeep	Assistant Professor	
5	Kinematics of Machinery	G Ravi Kumar	Associate Professor	

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# IDEAL INSTITUTE OF TECHNOLOGY

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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 08.11.21

The list of topics that will be covered in GATE coaching for III year B.Tech students are as follows:

## **Engineering Mechanics:**

Free-body diagrams and equilibrium; friction and its applications including rolling friction, belt-pulley, brakes, clutches, screw jack, wedge, vehicles, etc.; trusses and frames; virtual work; kinematics and dynamics of rigid bodies in plane motion; impulse and momentum (linear and angular) and energy formulations; Lagrange's equation.

## **Mechanics of Materials:**

Stress and strain, elastic constants, Poisson's ratio; Mohr's circle for plane stress and plane strain; thin cylinders; shear force and bending moment diagrams; bending and shear stresses; concept of shear centre; deflection of beams; torsion of circular shafts; Euler's theory of columns; energy methods; thermal stresses; strain gauges and rosettes; testing of materials with universal testing machine; testing of hardness and impact strength.

## **Theory of Machines:**

Displacement, velocity and acceleration analysis of plane mechanisms; dynamic analysis of linkages; cams; gears and gear trains; flywheels and governors; balancing of reciprocating and rotating masses; gyroscope. Vibrations: Free and forced vibration of single degree of freedom systems, effect of damping; vibration isolation; resonance; critical speeds of shafts.

## **Applied Thermodynamics:**

Power Engineering: Air and gas compressors; vapour and gas power cycles, concepts of regeneration and reheat. I.C. Engines: Air-standard Otto, Diesel and dual cycles. Refrigeration and air-conditioning: Vapour and gas refrigeration and heat pump cycles; properties of moist air, psychrometric chart, basic psychrometric processes. Turbomachinery: Impulse and reaction principles, velocity diagrams, Pelton-wheel, Francis and Kaplan turbines; steam and gas turbines.

## **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, jigs and fixtures; abrasive machining processes; NC/CNC machines and CNC programming.

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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 22.01.2022

## Report

**Name of the Event:** Coaching for Competitive Exams

**Date:** 15.11.2021 to 08.01.2022

The management of IDEAL Institute of Technology has conducted coaching classes for III B.Tech students for GATE and other competitive examinations. As per the directions given by the management the department of **Mechanical Engineering** has planned to conduct coaching classes on the working days from 4 P.M to 6 P.M daily.

As per the revised schedule the outcome of the program focused on the fundamentals in various subjects and provided relevant information to score well. The students have expressed immense satisfaction with the coaching programme.

**Number of Participants:** 61

**Details of Resource Person:**

S.No	Subject	Faculty Name	Designation
1	Design and Machine Members	J Lalitha Prathyusha	Assistant Professor
2	Integral Combustion Engines	R Vijaya Lakshmi	Assistant Professor
3	Dynamics of Machines	N Raghuram	Assistant Professor
4	Heat Transfer	N Sandeep	Assistant Professor
5	Kinematics of Machinery	G Ravi Kumar	Associate Professor

  
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# IDEAL INSTITUTE OF TECHNOLOGY

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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 08.11.21

## CIRCULAR

All the III-I semester Electronics and Communication students are hereby inform that, our Electronics and Communication Engineering department planning to conduct special classes for GATE & Other competitive examinations. So in this connection all the students are required to utilise this opportunity and attend classes regularly without fail. Timings for the above classes will be 4pm-6pm every day from 15.11.21 onwards.

  
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- Cc to
1. Principal office
  2. Electronics and Communication Engineering HOD
  3. Notice board
  4. Class Teacher



# IDEAL INSTITUTE OF TECHNOLOGY

(Approved by AICTE, New Delhi & Affiliated To JNTUK, Kakinada)

Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 08.11.21

## Faculties Allotted for A.Y 2020-21

S.No	Subject	Faculty Name	Designation	Signature
1	Control Systems	D Madhu	Assistant Professor	D. Madhu
2	Network Analysis	M Jagadesh	Assistant Professor	M Jagadesh
3	Digital Communications	B V Kalyan Ram	Assistant Professor	B. V. Kalyan Ram
4	Carrier Transport	Ch Venkata Prakash	Assistant Professor	Ch. V. Prakash
5	Analog and Digital Communication	D Vijaya Lakshmi	Assistant Professor	D. Vijaya Lakshmi

  
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# IDEAL INSTITUTE OF TECHNOLOGY

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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 08.11.21

The list of topics that will be covered in GATE coaching for III year B.Tech students are as follows:

## **Control Systems:**

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

## **Network analysis:**

Node and mesh analysis, superposition, Thevenin's theorem, Norton's theorem, reciprocity. Sinusoidal steady state analysis: phasors, complex power, maximum power transfer. Time and frequency domain analysis of linear circuits: RL, RC and RLC circuits, solution of network equations using Laplace transform. Linear 2-port network parameters, wye-delta transformation.

## **Digital communications:**

PCM, DPCM, digital modulation schemes (ASK, PSK, FSK, QAM), bandwidth, inter-symbol interference, MAP, ML detection, matched filter receiver, SNR and BER. Fundamentals of error correction, Hamming codes, CRC.

## **Analog and Digital Communications:**

Amplitude modulation and demodulation, angle modulation and demodulation, spectra of AM and FM, superheterodyne receivers.

Diffusion current, drift current, mobility and resistivity, generation and recombination of carriers, Poisson and continuity equations. P-N junction, Zener diode, BJT, MOS capacitor, MOSFET, LED, photo diode and solar cell.

## **Digital communications:**

PCM, DPCM, digital modulation schemes (ASK, PSK, FSK, QAM), bandwidth, inter-symbol interference, MAP, ML detection, matched filter receiver, SNR and BER. Fundamentals of error correction, Hamming codes, CRC.

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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 22.01.2022

## Report

**Name of the Event:** Coaching for Competitive Exams

**Date:** 15.11.2021 to 08.01.2022

The management of IDEAL Institute of Technology has conducted coaching classes for III B.Tech students for GATE and other competitive examinations. As per the directions given by the management the **Electronics and Communication Engineering** department has planned to conduct coaching classes on the working days from 4 P.M to 6 P.M daily.

As per the revised schedule the outcome of the program focused on the fundamentals in various subjects and provided relevant information to score well. The students have expressed immense satisfaction with the coaching programme.

**Number of Participants:** 60

**Details of Resource Person:**

S.No	Subject	Faculty Name	Designation
1	Control Systems	D Madhu	Assistant Professor
2	Network Analysis	M Jagadesh	Assistant Professor
3	Digital Communications	B V Kalyan Ram	Assistant Professor
4	Carrier Transport	Ch Venkata Prakash	Assistant Professor
5	Analog and Digital Communication	D Vijaya Lakshmi	Assistant Professor

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# IDEAL INSTITUTE OF TECHNOLOGY

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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 08.11.21

## CIRCULAR

All the III-I semester Computer Science students are hereby inform that, our Computer Science Engineering department planning to conduct special classes for GATE & Other competitive examinations. So in this connection all the students are required to utilise this opportunity and attend classes regularly without fail. Timings for the above classes will be 4pm-6pm every day from 15.11.21 onwards.

**PRINCIPAL**

- Cc to
1. Principal office
  2. Computer Science Engineering HOD
  3. Notice board
  4. Class Teacher



# IDEAL INSTITUTE OF TECHNOLOGY

(Approved by AICTE, New Delhi & Affiliated To JNTUK, Kakinada)

Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 08.11.21

## Faculties Allotted for A.Y 2020-21

S.No	Subject	Faculty Name	Designation	Signature
1	Computer Networks	M S R S Prasad	Assistant Professor	
2	Operating Systems	M Jayasree	Assistant Professor	
3	Compiler Design	R V V Gani Lakshmi	Assistant Professor	
4	Design and Analysis of Algorithms	R S V V Prasada Rao	Assistant Professor	
5	Database Management System	S Jyothirmayee	Assistant Professor	

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# IDEAL INSTITUTE OF TECHNOLOGY

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Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 08.11.21

The list of topics that will be covered in GATE coaching for III year B.Tech students are as follows:

## **Computer Networks:**

OSI and TCP/IP Protocol Stacks; Basics of packet, circuit and virtual circuitswitching; Data link layer: framing, error detection, Medium Access Control, Ethernet bridging; Routing protocols: shortest path, flooding, distance vector and link state routing; Fragmentation and IP addressing, IPv4, CIDR notation, Basics of IP support protocols (ARP, DHCP, ICMP), Network Address Translation (NAT); Transport layer: flow control and congestion control, UDP, TCP, sockets; Application layer protocols: DNS, SMTP, HTTP, FTP, Email.

## **Operating System:**

System calls, processes, threads, inter-process communication, concurrency and synchronization. Deadlock. CPU and I/O scheduling. Memory management and virtual memory. File systems.

## **Compiler Design:**

Lexical analysis, parsing, syntax-directed translation. Runtime environments. Intermediate code generation. Local optimisation, Data flow analyses: constant propagation, liveness analysis, common subexpression elimination

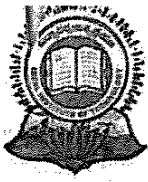
## **Design and Analysis of Algorithms:**

Searching, sorting, hashing. Asymptotic worst case time and space complexity. Algorithm design techniques: greedy, dynamic programming and divide-and-conquer. Graph traversals, minimum spanning trees, shortest paths

## **Database Management Systems:**

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.

PRINCIPAL



# IDEAL INSTITUTE OF TECHNOLOGY

(Approved by AICTE, New Delhi & Affiliated To JNTUK, Kakinada)

Vidyut Nagar, Kakinada-533003 (A.P.)

Date: 22.01.2022

## Report

**Name of the Event:** Coaching for Competitive Exams

**Date:** 15.11.2021 to 08.01.2022

The management of IDEAL Institute of Technology has conducted coaching classes for III B.Tech students for GATE and other competitive examinations. As per the directions given by the management the **Computer Science Engineering** department has planned to conduct coaching classes on the working days from 4 P.M to 6 P.M daily.

As per the revised schedule the outcome of the program focused on the fundamentals in various subjects and provided relevant information to score well. The students have expressed immense satisfaction with the coaching programme.

**Number of Participants:** 60

**Details of Resource Person:**

S.No	Subject	Faculty Name	Designation
1	Computer Networks	M S R S Prasad	Assistant Professor
2	Operating Systems	M Jayasree	Assistant Professor
3	Compiler Design	R V V Gani Lakshmi	Assistant Professor
4	Design and Analysis of Algorithms	R S V V Prasada Rao	Assistant Professor
5	Database Management System	S Jyothirmayee	Assistant Professor

  
HOD