S.A. Engineering College, Chennai- 600 077.

Department of Electrical and Electronics Engineering

Gate Coaching Class Topics Allotted and Covered for the Month of July 2024

Year/Semester: III/VI

Duration: 3rd July'24 to 31st July'24

Academic Year: 2024-2025 (Odd)

Section: Both 'A' and 'B'

S. No.	Name of the Staff Member	Date and Hour	Course Title	Topics Allotted	Topics Covered	Signature
1.	Dr. L. Umasankar	3rd July'24- First Hour	Electric Circuits	Transient response of DC and AC networks, Sinusoidal steady-state analysis, Resonance, 2 port networks, Balanced three phase circuits, Star-delta transformation, Complex power and power factor in AC circuits.	Introduction about course	
2.	Mrs. J. Megala	3rd July'24- Second Hour	Analog Electronics-III	Op-amp: characteristics and applications, Active filters: Sallen key and Butterworth, VCO and timers, Schmitt trigger, Sample and Hold circuits, A/D and D/A converters.	Introduction IC 741	
3.	Mr. T. Sathishkumar	3rd July'24- Third Hour	Analog Electronics-I	Simple diode circuits: clipping, clamping, Rectifiers. Amplifiers: biasing, equivalent circuit and frequency response, Oscillators and feedback amplifiers.	Introduction to Diode & Application	
4.	Mr. S.P. Alexprabhu	3rd July'24- Fourth Hour	Electrical Machines-II	3-Phase induction machines: Operation, types, performance, torque-speed characteristics, no-load and blocked rotor tests, equivalent circuit, starting and speed control. Operating principle of 1-phase induction motors. Synchronous machines: types, performance and characteristics, regulation and parallel operation		

				Starting of synchronous motors, Types of losses and efficiency calculations of electric machines.		
5.		3rd July'24- Fifth Hour	Mathematics	Analytic functions Cauchy Integral Formula, Taylor Series, Laurent Series, Cauchy Residue Thm, Solution Integral		m.my

03/07/'24

3/7/24

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Department of Electrical and Electronics Engineering

Gate Coaching Class Topics Allotted and Covered for the Month of July 2024

Year/Semester: III/VI & IV/VII

Duration: 3rd July'24 to 31st July'24

Academic Year: 2024-2025 (Odd)

Section: Both 'A' and 'B'

S. No.	Name of the Staff Member	Date and Hour	Course Title	Topics Allotted	Topics Covered	Signature
1.	Mrs. K.S. Margaret	10thJuly'24-First Hour	Control Systems	Mathematical modelling and representation of systems, Feedback principle, transfer function, Block diagrams and Signal flow graphs, Transient and Steady-state analysis of linear time invariant systems.	Stability Analysis using Nyquist Contour	
2.	Mrs. A. Prabha	10thJuly'24-Second Hour	Control Systems	Stability analysis using Routh-Hurwitz and Nyquist criteria, Bode plots, Root loci, Lag, Lead and Lead-Lag compensators; P, PI and PID controllers; State space model, Solution of state equations of LTI systems.	Transfer function, Block diagrams	
3.	Dr. G. Muralikrishnan	10th July'24-Third Hour	Electrical and Electronic Measurements	Bridges	Wheat stone Bridge- previous Gate Questions	
4.	Dr. S. Kamalakkannan	10th July'24-Fourth Hour	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.	Capacitor & capacitance of	
5.	Dr. M. Meganathan	10th July'24-Fifth Hour	Mathematics	Complex Variables: Analytic functions, Cauchy's integral theorem, Cauchy's integral formula, Taylor series, Laurent series, Residue theorem, Solution integrals.	Cauchy Residue Theorem, Cauchy Integral Formula	

Staff In charge

HoD 10/7/24

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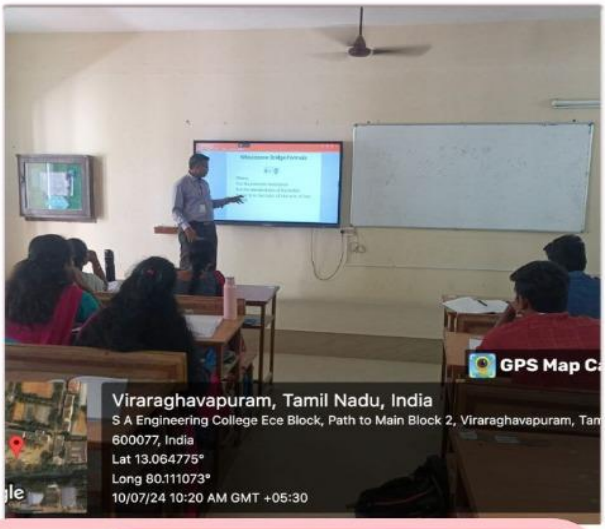
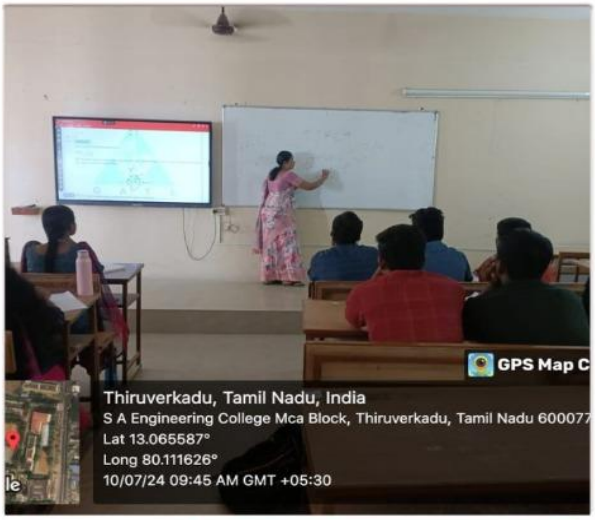
ELECTRICAL AND ELECTRONICS ENGINEERING

GATE COACHING CLASS

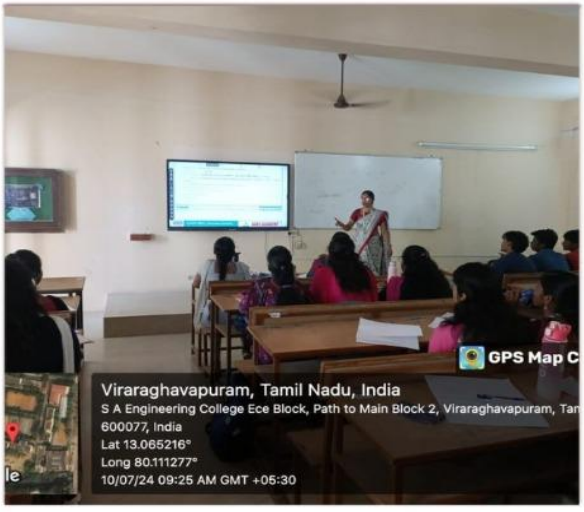
Dr.S.Kamalakkannan
Topic: Electromagnetic Fields.
Sub topic: Capacitance of various configurations.



Dr.G.Murali Krishnan
Topic: Electrical and Electronic Measurements.
Sub Topic: DC Bridges



Mrs.A.Prabha
Topic: Control systems
Sub topic: Mathematical Modelling



Mrs. K.S.Margaret
Topic: Control Systems
Sub topic: Stability Analysis

Date:10 july 2024 | venue:EEF03
EEE Department

S.A. Engineering College, Chennai- 600 077.

Department of Electrical and Electronics Engineering

Gate Coaching Class Topics Allotted and Covered for the Month of July 2024

Year/Semester: III/VI & IV/VII

Duration: 3rd July'24 to 31st July'24

Academic Year: 2024-2025 (Odd)

Section: Both 'A' and 'B'

S. No.	Name of the Staff Member	Date and Hour	Course Title	Topics Allotted	Topics Covered	Signature
1.	Unit Test 1					
2.	Mrs. N. Rajavinu	24th July'24- Second Hour	Electrical Machines I	DC machines: separately excited, series and shunt, motoring and generating mode of operation and their characteristics, speed control of dc motors;	Basic concepts Types and Problem related to Shunt motor	
3.	Dr. G. Muralikrishnan	24th July'24- Third Hour	Electrical and Electronic Measurements	Bridges	Maxwell & Schering Bridge Gate Problems	
4.	Mrs. S. Bharathi	24th July'24- Fourth Hour	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.	Thevenin's & Maximum power transfer Theorem Problem on Thevenins Theorem	S. Bharathi
5.	Dr. M. Meganathan	24th July'24- Fifth Hour	Engineering Mathematics	Complex Variables: Analytic functions, Cauchy's integral theorem, Cauchy's integral formula, Taylor series, Laurent series, Residue theorem, Solution integrals.	Taylor series Laurent series	m.my

Staff in charge

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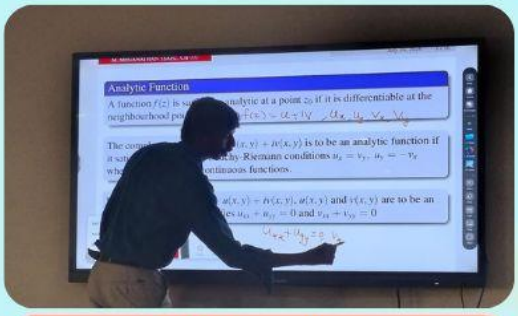
Department of Electrical and Electronics Engineering

GATE COACHING CLASS

Mrs.N.Rajavinu
Topic: Electrical Machines

Mrs.S.Bharathi
Topic: Electric Circuits

Dr.G.Murali Krishnan
Topic: Electrical & Electronic Measurement



Dr.M.Meganathan
Topic: Analytic Function

Date: 24 july 2024 | Venue: EEF03

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S.A. Engineering College, Chennai- 600 077.

Department of Electrical and Electronics Engineering

Gate Coaching Class Topics Allotted and Covered for the Month of July 2024

Year/Semester: III/VI & IV/VII

Duration: 3rd July'24 to 31st July'24

Academic Year: 2024-2025 (Odd)

Sections: Both 'A' and 'B'

S. No.	Name of the Staff Member	Date and Hour	Course Title	Topics Allotted	Topics Covered	Signature
1.	Dr. N. Magadevi	31st July'24- First Hour	Electromagnetic Fields	Biot-Savart's law Ampere's law Curl Faraday's law Lorentz force Inductance Magnetomotive force Reluctance Magnetic circuits Self & Mutual inductance of simple configurations.	BIOT SAVARTS LAW	Magd.
2.	Mr. K. Vijayakumar	31st July'24- Second Hour	Electrical and Electronic Measurements	Bridges & Potentiometers Measurement of voltage & current Measurement of power, energy & power factor Instrument transformers Digital voltmeters & multimeters Phase, Time & Frequency measurement; Oscilloscope Error analysis.	Instrument Transformer	
3.	Dr. S. Kamalakkannan	31st July'24- Third Hour	Electromagnetic Fields	Coulomb's Law, Electric Field Intensity Electric Flux Density Gauss's Law Divergence Electric field & potential due to point, line, plane, and spherical charge distributions Effect of a dielectric medium the capacitance of simple configurations.	coulomb's law capacitance of a capacitor	
4.	Dr. S. Bhuvaneswari	31st July'24- Fourth Hour	Power Systems	Basic concepts of electrical power generation AC and DC transmission concepts Models and performance of transmission lines & cables Economic Load Dispatch (with & without considering transmission losses) Series & shunt compensation Electric field distribution	Basic concepts, conductors	

				Insulators Distribution systems		
5.	Dr. M. Meganathan	31st July'24- Fifth Hour	Engineering Mathematics	Complex Variables: Analytic functions, Cauchy's integral theorem, Cauchy's integral formula, Taylor series, Laurent series, Residue theorem, Solution integrals.	Solution of Integrals	

Staff In charge

HoD 31/7/24

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Certified Institution

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

GATE COACHING CLASS

Dr.S.Kamalakkannan
Electrostatics

Dr.S.Bhuvaneswari
Power Systems

Dr.N.Magadevi
Magnetostatics

Mr.K.Vijaykumar
Electrical & Electronic Measurement

EEE Department

31.07.2024

Dr.M.Meganathan
Complex Variables

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S.A. Engineering College, Chennai- 600 077.

Department of Electrical and Electronics Engineering

Gate Coaching Class Topics Allotted and Covered for the Month of August 2024

Year/Semester: III/VI & IV/VII

Duration: 7th Aug'24 to 28th Aug'24

Academic Year: 2024-2025 (Odd)

Sections: Both 'A' and 'B'

S. No.	Name of the Staff Member	Date and Hour	Course Title	Topics Allotted	Topics Covered	Signature
1.	Mrs. S. Sathya	7th Aug'24 - First Hour	Digital Electronics	Combinatorial and sequential logic circuits, multiplexers, demultiplexers.	Multiplexer	
2.	Mrs. S. Bharathi	7th Aug'24 - Second Hour	Electric Circuits	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	Thevenin's Theorem Problem, voltage division Rule & Current Div. Rule	S. Bharathi
3.	Dr. S. Kamalakkannan	7th Aug'24 - Third Hour	Electromagnetic Fields	Coulomb's Law, Electric Field Intensity Electric Flux Density Gauss's Law Divergence Electric field & potential due to point, line, plane, and spherical charge distributions Effect of a dielectric medium the capacitance of simple configurations.	Problem on capacitance Elect. field Intensity	

4.	Mr. S. P. Alexprabhu	7th Aug'24 - Fourth Hour	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; 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	Single phase Transformer - no load, on load, phasor diagrams, problems.	
5.	Mrs. K. Kavitha	7th Aug'24 - Fifth Hour	Calculus	Mean value theorems, Theorems of integral calculus Evaluation of definite and improper integrals Partial derivatives, maxima and minima Multiple integrals, Fourier series, vector identities, directional derivative line, surface and volume integrals, Stoke's theorem, Gauss's theorem, divergence theorem, Green's theorem	Directive derivate Green thm GDT	

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

GATE COACHING CLASS

INSTITUTION'S INNOVATION COUNCIL

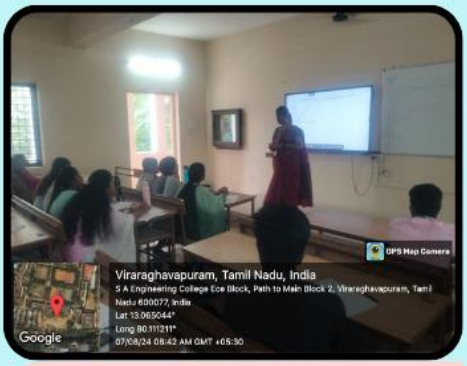
Date: 07 Aug 2024
Venue: EEF03

Dr.S.Kamalakannan
Topic: Electromagnetic field

Mrs.K.Kavitha
Topic:Calculus

Mrs.S.Bharathi
Topic: Electric Circuits

Mr.S.P.Alexprabu
Topic: Electrical machines



Mrs.S.Sathya
Topic:Digital electronics

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S.A. Engineering College, Chennai- 600 077.

Department of Electrical and Electronics Engineering

Gate Coaching Class Topics Allotted and Covered for the Month of August 2024

Year/Semester: III/VI & IV/VII

Duration: 7th Aug'24 to 28th Aug'24

Academic Year: 2024-2025 (Odd)

Sections: Both 'A' and 'B'

S. No.	Name of the Staff Member	Date and Hour	Course Title	Topics Allotted	Topics Covered	Signature
1.	Dr. L. Umasankar	14th Aug'24 - First Hour	Electric Circuits	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	Superposition theorem	
2.	Mrs. A. Prabha	14th Aug'24 - Second Hour	Control Systems	Mathematical modelling and representation of systems, Feedback principle, transfer function, Block diagrams and Signal flow graphs, Transient and Steady-state analysis of linear time invariant systems, Stability analysis using Routh-Hurwitz and Nyquist criteria, Bode plots, Root loci, Lag, Lead and Lead-Lag compensators; P, PI and PID controllers; State space model, Solution of state equations of LTI systems.	Time response analysis	

3.	Mr. T. Sathishkumar	14th Aug'24 - Third Hour	Analog Electronics-I	Simple diode circuits: clipping, clamping, Rectifiers. Amplifiers: biasing, equivalent circuit and frequency response, Oscillators and feedback amplifiers.	O.C, S.C Test	
4.	Dr. S. Bhuvaneswari	14th Aug'24 - Fourth Hour	Power Systems	Basic concepts of electrical power generation AC and DC transmission concepts Models and performance of transmission lines & cables Economic Load Dispatch (with & without considering transmission losses) Series & shunt compensation Electric field distribution Insulators Distribution systems Per-unit quantities Bus admittance matrix Gauss-Seidel & Newton-Raphson load flow methods Voltage & Frequency control Power factor correction Symmetrical components Symmetrical & unsymmetrical fault analysis Principles of over-current, differential, directional & distance protection Circuit breakers System stability concepts Equal area criterion	Basic concepts of AC & DC Trans & Bundled conductor concepts	
5.	Mrs. K. Kavitha	14th Aug'24 - Fifth Hour	Calculus	Mean value theorems, Theorems of integral calculus Evaluation of definite and improper integrals Partial derivatives, maxima and minima Multiple integrals, Fourier series, vector identities, directional derivative line, surface and volume integrals, Stoke's theorem, Gauss's theorem, divergence theorem, Green's theorem	Volume Surface Green tran	

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

GATE COACHING CLASS

Date: 14 Aug 2024
Venue: EEF03

Dr.L.Umasankar
Topic: Electric circuits

Mrs Dr.S.Bhuvaneshwari
Topic: Power systems

Mrs.K.Kavitha
Topic:Calculus

Mr.S.P.Alexprabu
Topic:Electical Machines

Mrs.A.Prabha
Topic:Control systems

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