



Indra Ganesan

COLLEGE OF ENGINEERING

Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai
Accredited by NAAC with 'B+' Grade, 2(f) & 12B Status Institution by UGC

IG Valley, Madurai Main Road, Manikandam, Tiruchirappalli - 620012

NAAC DOCUMENTS

QUALITY INDICATOR FRAME WORK

CRITERION – 2

TEACHING-LEARNING AND EVALUATION

SUBMITTED BY

IQAC

INTERNAL QUALITY ASSURANCE CELL

INDRA GANESAN COLLEGE OF ENGINEERING





Indra Ganesan

COLLEGE OF ENGINEERING

Madurai Main Road (NH-45B), Manikandam, Tiruchirappalli - 620 012
Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai
NAAC Accredited, 2(F) Status Institution by UGC



Criteria 2	Teaching-Learning and Evaluation	350
-------------------	---	------------

Key Indicator-2.6 Student Performances and Learning Outcome (90)

2.6.1 Programme Outcomes (POs) and Course Outcomes (COs) for all programmes offered by the institution are stated and displayed on website

DEPARTMENT OF S&H R2021

INDRA GANESAN COLLEGE OF ENGINEERING

**IG Valley, Manikandam, Tiruchirappalli, Tamil Nadu – 620 012, India
(Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25)**

DEPARTMENT OF SCIENCE AND HUMANITIES

COURSE OUTCOMES-REGULATIONS2021

I SEMESTER


COURSE OUTCOMES-REGULATIONS2021-ISEMESTER

Course Code	CourseName	Course Outcome(CO) Studentswillbeableto
HS3152	PROFESSIONAL ENGLISH I I	CIOL.1: To use appropriate words in a professional context
		CIOL.2: To gain understanding of basic grammatic structures and use them in right context
		CIOL.3: To read and infer the denotative and connotative meanings of technical texts.
		CIOL.4: To write definitions, descriptions, narrations and essays on various topics
		CIOL.5: To develop their speaking skillsandspeakfluentlyinrealcontexts.
		CIOL.6: Discuss about the general kind in magazines and newspapers

CO-POMAPPING

Cos	Pos												PSO		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CIOL.1	-	-	-	-	3	2	2	2	2	2	-	2	-	-	-
CIOL.2	-	-	-	-	3	2	2	2	2	2	-	2	-	-	-
CIOL.3	-	-	-	-	3	2	2	2	2	2	-	2	-	-	-
CIOL.4	-	-	-	-	3	2	2	2	2	2	-	2	-	-	-
CIOL.5	-	-	-	-	3	2	2	2	2	2	-	2	-	-	-
CIOL.6	-	-	-	-	3	2	2	2	2	2	-	2	-	-	-
CIOL.7	-	-	-	-	3	2	2	2	2	2	-	2	-	-	-

*3-Highcorrelation;2-Mediumcorrelation;1-Lowcorrelation


Dr. G. Balakrishnan, M.E., Ph.D.
 Principal
 Indra Ganesan College of Engineering
 IG Valley, Madurai Main Road
 Manikandam, Trichy-620 012.


COURSEOUTCOMES-REGULATIONS 2021

Course Code	CourseName	CourseOutcome(CO) Students will be able to
MA1151	MATRICES AND CALCULUS	C102.1: Use the matrix algebra methods for solving practical problems
		C102.2: Apply differential calculus tools in solving various application problems..
		C102.3: Able to use differential calculus ideas on several variable functions
		C102.4: Apply different methods of integration in solving practical problems
		C102.5: Apply multiple integral ideas in solving areas, volumes and other practical problems
		C102.6: Apply various techniques in solving differential equations.

CO-POMAPPING

Cos	Pos												PSO		
	POI	PO2	PO3	PO4	POS	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C102.1	3	2	2	2	-	-	-	-	-	2	-	2	-	2	-
C102.2	3	2	2	2	-	-	-	-	-	2	-	2	-	2	-
C102.3	3	2	2	2	-	-	-	-	-	2	-	2	-	2	-
C102.4	3	2	2	2	-	-	-	-	-	2	-	2	-	2	-
C102.5	3	2	2	2	-	-	-	-	-	2	-	2	-	2	-
C102.6	3	2	2	2	-	-	-	-	-	2	-	2	-	2	-
C102.7	3	2	2	2	-	-	-	-	-	2	-	2	-	2	-

***3-Highcorrelation;2-Medium correlation;1-Lowcorrelation**


Dr. G. Balakrishnan, M.E., Ph.D.,
 Principal
 Indra Ganesan College of Engineering
 IG Valley, Madurai Main Road
 Manikandam, Trichy-620 012.


COURSE OUTCOMES-REGULATIONS 2021

Course Code	Course Name	Course Outcome(CO) Students will be able to
PH3151	ENGINEERING PHYSICS	C103.1: Understand the importance of mechanics Understand the importance of mechanics.
		C103.2: Express their knowledge in electromagnetic waves.
		C103.3: Demonstrate a strong foundational knowledge in oscillations, optics and lasers.
		C103.4: Understand the importance of quantum physics
		C103.5: Comprehend and apply quantum mechanical principles towards the formation of energy bands.
		C103.6: Describe the unit cell characteristics and the growth of crystals.

CO-POMAPPING

Cos	Pos												PSO		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C103.1	2	2	2	1	-	-	1	-	-	1	-	1	-	-	-
C103.2	2	2	2	1	-	-	1	-	-	1	-	1	-	-	-
C103.3	2	2	2	1	-	-	1	-	-	1	-	1	-	-	-
C103.4	2	2	2	1	-	-	1	-	-	1	-	1	-	-	-
C103.5	2	2	2	1	-	-	1	-	-	1	-	1	-	-	-
C103.6	2	2	2	1	-	-	1	-	-	1	-	1	-	-	-
C103.7	2	2	2	1	-	-	1	-	-	1	-	1	-	-	-

***3-High correlation; 2-Medium correlation; 1-Low correlation**


Dr. G. Balakrishnan, M.E., Ph.D.,
 Principal
 Indra Ganesan College of Engineering
 IG Valley, Madurai Main Road
 Manikandam, Trichy-620 012.


COURSE OUTCOMES-REGULATIONS 2021

Course Code	Course Name	Course Outcome(CO) Students will be able to •
CY3151	ENGINEERING CHEMISTRY	C104.1: To infer the quality of water from quality parameter data and propose suitable treatment methodologies to treat water
		C104.2: To identify and apply basic concepts of nanoscience and nanotechnology in designing the synthesis of nanomaterials for engineering and technology applications
		C104.3: To apply the knowledge of phase rule and composites for material selection requirements
		C104.4: To recommend suitable fuels for engineering processes and applications.
		C104.5: To recognize different forms of energy resources and apply them for suitable applications in energy sectors.
		C104.6: Summarize the principles and generation of energy in batteries, nuclear reactors, solar cells, wind mills and fuel cells

CO-POMAPPING

Cos	Pos												PSO		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C104.1	3	2	2	1	-	-	1	-	-	1	-	-	-	-	-
C104.2	3	2	2	1	-	-	1	-	-	1	-	-	-	-	-
C104.3	3	2	2	1	-	-	1	-	-	1	-	-	-	-	-
C104.4	3	2	2	1	-	-	1	-	-	1	-	-	-	-	-
C104.5	3	2	2	1	-	-	1	-	-	1	-	-	-	-	-
C104.6	3	2	2	1	-	-	1	-	-	1	-	-	-	-	-
C104.7	3	2	2	1	-	-	1	-	-	1	-	-	-	-	-

***3-High correlation; 2-Medium correlation; 1-Low correlation**


Dr. G. Balakrishnan, M.E., Ph.D.,
 Principal
 Indra Ganesan College of Engineering
 IG Valley, Madurai Main Road
 Manikandam, Trichy-620 012.

COURSE OUTCOMES-REGULATIONS 2021

Course Code	Course Name	Course Outcome(CO) Students will be able to
GE3151	PROBLEM SOLVING AND PYTHON PROGRAMMING	C105.1: Develop algorithmic solutions to simple computational problems
		C105.2: Develop and execute simple Python programs
		C105.3: Write simple Python programs using conditionals and loops for solving problems
		C105.4: Decompose a Python program into functions
		C105.5: Represent compound data using Python lists, tuples, dictionaries etc.
		C105.6: Read and write data from/to files in Python programs.

CO-POMAPPING

Cos	Pos												PSO		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C105.1	3	2	1	1	1	1	-	-	-	1	-	1	1	-	-
C105.2	3	2	2	1	1	1	-	-	-	1	-	1	1	-	-
C105.3	3	2	2	1	1	1	-	-	-	1	-	1	1	-	-
C105.4	3	2	2	1	1	1	-	-	-	1	-	1	1	-	-
C105.5	3	2	2	1	1	1	-	-	-	1	-	1	1	-	-
C105.6	3	2	1	1	1	1	-	-	-	1	-	1	1	-	-
C105.7	3	2	2	1	1	1	-	-	-	1	-	1	1	-	-

***3-High correlation; 2-Medium correlation; 1-Low correlation**


Dr. G. Balakrishnan, M.E., Ph.D.,
 Principal
 Indra Ganesan College of Engineering
 IG Valley, Madurai Main Road
 Manikandam, Trichy-620 012.

COURSE OUTCOMES-REGULATIONS 2021

Course Code	CourseName	Course Outcome(CO) Studentswillbeableto
GE3152	HERITAGES OF TAMIL	C106.1: தமிழர்களின் மரபினை மாணவர்கள் அறிந்து கொள்ளுதல்.
		C106.2: தமிழ்மொழி மற்றும் இலக்கியங்களை தெரிந்து கொள்ளுதல்.
		C106.3: மரபு – பாறை ஓவியங்கள், நவீன ஓவியங்கள், சிற்பக்கலைகளை அறிந்து கொள்ளும்.
		C106.4: நாட்டுப்புறக்கலைகள் மற்றும் வீரவிளையாட்டுகளை தெரிந்துகொள்ள செய்தல்.
		C106.5: தமிழர்களின் திணைக்கோட்பாடுகளை உணர்த்துதல்.
		C106.6: இந்திய தேசிய இயக்கங்கள் மற்றும் இந்தியப் பண்பாட்டிற்கு தமிழர்களின் பங்களிப்பினை அறிந்து கொள்ள செய்தல்.

CO-POMAPPING

Cos	Pos												PSO		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C1061	2	1	1	1	1	1	-	-	-	1	-	-	-	-	-
C106.2	2	1	1	1	1	1	-	-	-	1	-	-	-	-	-
C106.3	2	1	1	1	1	1	-	-	-	1	-	-	-	-	-
C106.4	2	1	1	1	1	1	-	-	-	1	-	-	-	-	-
C106.5	2	1	1	1	1	1	-	-	-	1	-	-	-	-	-
C106.6	2	1	1	1	1	1	-	-	-	1	-	-	-	-	-
C105.7	2	1	1	1	1	1	-	-	-	1	-	-	-	-	-

*3-Highcorrelation;2-Mediumcorrelation;1-Lowcorrelation


Dr. G. Balakrishnan, M.E., Ph.D.,
 Principal
 Indra Ganesan College of Engineering
 IG Valley, Madurai Main Road
 Manikandam, Trichy-620 012.

COURSEOUTCOMES-REGULATIONS2021

Course Code	CourseName	Course Outcome(CO) Students will be able to
GE3171	PROBLEM SOLVINGAND PYTHON PROGRAMMING LABORATORY	C107.1: Develop algorithmic solutions to simple computational problems
		C107.2: Develop and execute simple Python programs
		C107.3: Implement programs in Python using conditionals and loops for solving problems
		C107.4: Deploy functions to decompose a Python program
		C107.5: : Process compound data using Python data structures.
		C107.6: Utilize Python packages in developing software applications

CO-POMAPPING

Cos	Pos												PSO		
	POI	PO2	PO3	PO4	POS	PO6	PO7	PO8	PO9	POIO	POII	POI2	PSOI	PSO2	PSO3
C107.1	3	2	2	1	1	-	-	-	1	1	-	1	-	-	-
C107.2	3	2	2	1	1	-	-	-	1	1	-	1	-	-	-
C107.3	3	2	2	1	1	-	-	-	1	1	-	1	-	-	-
C107.4	3	2	2	1	1	-	-	-	1	1	-	1	-	-	-
C107.5	3	2	2	1	1	-	-	-	1	1	-	1	-	-	-
C107.6	3	2	2	1	1	-	-	-	1	1	-	1	-	-	-
C107.7	3	2	2	1	1	-	-	-	1	1	-	1	-	-	-

***3-Highcorrelation;2-Medium correlation;1-Lowcorrelation**


Dr. G. Balakrishnan, M.E., Ph.D.,
 Principal
 Indra Ganesan College of Engineering
 IG Valley, Madurai Main Road
 Manikandam, Trichy-620 012.


COURSEOUTCOMES-REGULATIONS2021

Course Code	CourseName	Course Outcome(CO) Students will be able to
BS3171	PHYSICS AND CHEMISTRY LABORATORY	C108.1: Understand the functioning of various physics laboratory equipment.
		C108.2: Use graphical models to analyze laboratory data..
		C108.3: Use mathematical models as a medium for quantitative reasoning and describing physicalreality.
		C108.4: Access, process and analyze scientific information.
		C108.5: Solve problems individually and collaboratively
		C108.6: Determinetheamount of chloride content in the given water sample

CO-POMAPPING

Cos	Pos												PSO		
	POI	P02	P03	P04	POS	P06	P07	POS	P09	POIO	PO11	P012	PS01	PS02	PS03
C108.1	3	2	2	1	1	-	-	-	1	1	-	1	1	1	-
C108.2	3	2	2	1	1	-	-	-	1	1	-	1	1	1	-
C108.3	3	2	2	1	1	-	-	-	1	1	-	1	1	1	-
C108.4	3	2	2	1	1	-	-	-	1	1	-	1	1	1	-
C108.5	3	2	2	1	1	-	-	-	1	1	-	1	1	1	-
C108.6	3	2	2	1	1	-	-	-	1	1	-	1	1	1	-
C108.7	3	2	2	1	1	-	-	-	1	1	-	1	1	1	-

*3-Highcorrelation;2-Mediumcorrelation;1-Lowcorrelation


Dr. G. Balakrishnan, M.E., Ph.D.,
 Principal
 Indra Ganesan College of Engineering
 IG Valley, Madurai Main Road
 Manikandam, Trichy-620 012.


COURSE OUTCOMES-REGULATIONS 2021

Course Code	Course Name	Course Outcome(CO) Students will be able to
GE3172	ENGLISH LABORATORY	C109.1: To listen to and comprehend general as well as complex academic information
		C109.2: To listen to and understand different points of view in a discussion
		C109.3: To speak fluently and accurately in formal and informal communicative contexts
		C109.4: To describe products and processes and explain their uses and purposes clearly and accurately
		C109.5: To describe products and processes and explain their uses and purposes clearly and accurately
		C109.6: To use language efficiently in expressing their opinions via various media.

CO-POMAPPING

COS	POs												PSO		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C109.1	3	3	-	-	-	2	2	1	1	1	-	1	-	-	-
C109.2	3	3	-	-	-	2	2	1	1	1	-	1	-	-	-
C109.3	3	3	-	-	-	2	2	1	1	1	-	1	-	-	-
C109.4	3	3	-	-	-	2	2	1	1	1	-	1	-	-	-
C109.5	3	3	-	-	-	2	2	1	1	1	-	1	-	-	-
C109.6	3	3	-	-	-	2	2	1	1	1	-	1	-	-	-
C109.7	3	3	-	-	-	2	2	1	1	1	-	1	-	-	-

*3-High correlation; 2-Medium correlation; 1-Low correlation


Dr. G. Balakrishnan, M.E., Ph.D.,
 Principal
 Indra Ganesan College of Engineering
 IG Valley, Madurai Main Road
 Manikandam, Trichy-620 012.

COURSEOUTCOMES-REGULATIONS 2017

II SEMESTER

COURSE OUTCOMES-REGULATIONS 2021-II SEMESTER

Course Code	Course Name	Course Outcome(CO) Students will be able to
HS3252	PROFESSIONAL ENGLISH - II	C110.1: To compare and contrast products and ideas in technical texts.
		C110.2: To identify and report cause and effects in events, industrial processes through technical texts
		C110.3: To analyse problems in order to arrive at feasible solutions and communicate them in the written format
		C110.4: To present their ideas and opinions in a planned and logical manner
		C110.5: To draft effective resumes in the context of job search.
		C110.6: To develop analytical thinking skills for problem solving in communicative contexts

CO-POMAPPING

COS	POs												PSO		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CH0.1	3	3	-	-	-	2	2	1	1	1	-	1	-	-	-
CH0.2	3	3	-	-	-	2	2	1	1	1	-	1	-	-	-
CH0.3	3	3	-	-	-	2	2	1	1	1	-	1	-	-	-
CH0.4	3	3	-	-	-	2	2	1	1	1	-	1	-	-	-
CH0.5	3	3	-	-	-	2	2	1	1	1	-	1	-	-	-
CH0.6	3	3	-	-	-	2	2	1	1	1	-	1	-	-	-
CH0.7	3	3	-	-	-	2	2	1	1	1	-	1	-	-	-

*3-High correlation; 2-Medium correlation; 1-Low correlation


Dr. G. Balakrishnan, M.E., Ph.D.,
 Principal
 Indra Ganesan College of Engineering
 IG Valley, Madurai Main Road
 Manikandam, Trichy-620 012.

COURSE OUTCOMES-REGULATIONS 2021

Course Code	Course Name	Course Outcome (CO) Students will be able to
MA3251	STATISTICS AND NUMERICAL METHODS	CIII.1: Apply the concept of testing of hypothesis for small and large samples in real life problems
		CIII.2: Apply Gradient, divergence and curl of a vector point function and related identities
		CIII.3: Appreciate the numerical techniques of interpolation in various intervals and apply the numerical techniques of differentiation and integration for engineering problems.
		CIII.4: Understand the knowledge of various techniques and methods for solving first and second order ordinary differential equations.
		CIII.5: Solve the partial and ordinary differential equations with initial and boundary conditions by using certain techniques with engineering applications.
		CIII.6: To introduce the basic concepts of solving algebraic and transcendental equations

CO-PO MAPPING

COS	POs												PSO		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CIII.1	3	3	2	2	-	-	-	-	-	2	-	2	1	1	-
CIII.2	3	3	2	2	-	-	-	-	-	2	-	2	1	1	-
CIII.3	3	3	2	2	-	-	-	-	-	2	-	2	1	1	-
CIII.4	3	3	2	2	-	-	-	-	-	2	-	2	1	1	-
CIII.5	3	3	2	2	-	-	-	-	-	2	-	2	1	1	-
CIII.6	3	3	2	2	-	-	-	-	-	2	-	2	1	1	-
CIII.7	3	3	2	2	-	-	-	-	-	2	-	2	1	1	-

*3-High correlation; 2-Medium correlation; 1-Low correlation

Dr. G. Balakrishnan, M.E., Ph.D.,
Principal

Indra Ganesan College of Engineering
IG Valley, Madurai Main Road
Manikandam, Trichy-620 012.


COURSE OUTCOMES-REGULATIONS 2021

Course Code	Course Name	Course Outcome(CO) Students will be able to
PH3256	PHYSICS FOR INFORMATION SCIENCE	CI12.1: Gain knowledge on classical and quantum electron theories, and energy band structures,
		CI12.2: Acquire knowledge on basics of semiconductor physics and its applications in various devices,
		CI12.3: Get knowledge on magnetic properties of materials and their applications in data storage,
		CI12.4: Have the necessary understanding on the functioning of optical materials for optoelectronics
		CI12.5: Understand the basics of quantum structures and their applications and basics of quantum computing
		CI12.6: To make the students understand the importance in studying electrical properties of materials.

CO-PO MAPPING

COS	POs												PSO		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CI12.1	3	2	2	2	-	-	-	-	-	2	-	1	1	1	-
CI12.2	3	2	2	2	-	-	-	-	-	2	-	1	1	1	-
CI12.3	3	2	2	2	-	-	-	-	-	2	-	1	1	1	-
CI12.4	3	2	2	2	-	-	-	-	-	2	-	1	1	1	-
CI12.5	3	2	2	2	-	-	-	-	-	2	-	1	1	1	-
CI12.6	3	2	2	2	-	-	-	-	-	2	-	1	1	1	-
CI12.7	3	2	2	2	-	-	-	-	-	2	-	1	1	1	-

***3-High correlation; 2-Medium correlation; 1-Low correlation**


Dr. G. Balakrishnan, M.E., Ph.D.,
 Principal
 Indra Ganesan College of Engineering
 IG Valley, Madurai Main Road
 Manikandam, Trichy-620 012.

COURSE OUTCOMES-REGULATIONS 2021

Course Code	CourseName	Course Outcome(CO) Students will be able to
BE3251	BASIC ELECTRICAL AND ELECTRONICS ENGINEERING	C113.1: Compute the electric circuit parameters for simple problems.
		C113.2: Explain the working principle and applications of electrical machines
		C113.3: Analyze the characteristics of analog electronic devices
		C113.4: Explain the basic concepts of digital electronics
		C113.5: Explain the operating principles of measuring instruments
		C113.6; To educate on the fundamental concepts of digital electronics

CO-POMAPPING

COS	POs												PSO		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C113.1	3	2	2	2	-	2	2	-	-	1	-	1	I	-	-
C113.2	3	2	2	2	-	2	2	-	-	1	-	1	I	-	-
C113.3	3	2	2	2	-	2	2	-	-	1	-	1	I	-	-
C113.4	3	2	2	2	-	2	2	-	-	1	-	1	I	-	-
C113.5	3	2	2	2	-	2	2	-	-	1	-	1	I	-	-
C113.6	3	2	2	2	-	2	2	-	-	1	-	1	I	-	-
C113.7	3	2	2	2	-	2	2	-	-	1	-	1	I	-	-

***3-Highcorrelation;2-Mediumcorrelation;1-Lowcorrelation**


Dr. G. Balakrishnan, M.E., Ph.D.,
 Principal
 Indra Ganesan College of Engineering
 IG Valley, Madurai Main Road
 Manikandam, Trichy-620 012.

COURSE OUTCOMES-REGULATIONS 2021

Course Code	Course Name	Course Outcome(CO) Students will be able to
GE3251	ENGINEERING GRAPHICS	C114.1: Use BIS conventions and specifications for engineering drawing
		C114.2: Construct the conic curves, involutes and cycloid
		C114.3: Solve practical problems involving projection of lines.
		C114.4 Draw the orthographic, isometric and perspective projections of simple solids
		C114.5: Draw the development of simple solids
		C114.6; Drawing a freehand sketch of simple objects.

CO-POMAPPING

COS	POs												PSO		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C114.1	3	2	2	2	-	2	2	-	-	1	-	1	I	-	-
C114.2	3	2	2	2	-	2	2	-	-	1	-	1	I	-	-
C114.3	3	2	2	2	-	2	2	-	-	1	-	1	I	-	-
C114.4	3	2	2	2	-	2	2	-	-	1	-	1	I	-	-
C114.5	3	2	2	2	-	2	2	-	-	1	-	1	I	-	-
C114.6	3	2	2	2	-	2	2	-	-	1	-	1	I	-	-
C114.7	3	2	2	2	-	2	2	-	-	1	-	1	I	-	-

*3-High correlation; 2-Medium correlation; 1-Low correlation


Dr. G. Balakrishnan, M.E., Ph.D.,
 Principal
 Indra Ganesan College of Engineering
 IG Valley, Madurai Main Road
 Manikandam, Trichy-620 012.


COURSE OUTCOMES-REGULATIONS 2021

Course Code	Course Name	Course Outcome(CO) Students will be able to
AD3251	DATA STRUCTURES DESIGN	C115.1: Explain abstract data types
		C115.2: Design, implement, and analyse linear data structures, such as lists, queues, and stacks, according to the needs of different applications
		C115.3: Design, implement, and analyse efficient tree structures to meet requirements such as searching, indexing, and sorting
		C115.4: Model problems as graph problems and implement efficient graph algorithms to solve them
		C115.5: To understand sorting, searching and hashing algorithms
		C115.6: To apply Tree and Graph structures

CO-POMAPPING

COS	POs												PSO		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C115.1	3	3	2	2	-	2	2	-	-	1	-	1	I	-	-
C115.2	3	3	2	2	-	2	2	-	-	1	-	1	I	-	-
C115.3	3	3	2	2	-	2	2	-	-	1	-	1	I	-	-
C115.4	3	3	2	2	-	2	2	-	-	1	-	1	I	-	-
C115.5	3	3	2	2	-	2	2	-	-	1	-	1	I	-	-
C115.6	3	3	2	2	-	2	2	-	-	1	-	1	I	-	-
C115.7	3	3	2	2	-	2	2	-	-	1	-	1	I	-	-

*3-High correlation; 2-Medium correlation; 1-Low correlation


Dr. G. Balakrishnan, M.E., Ph.D.,
 Principal
 Indra Ganesan College of Engineering
 IG Valley, Madurai Main Road
 Manikandam, Trichy-620 012.

COURSEOUTCOMES-REGULATIONS2021

Course Code	CourseName	Course Outcome(CO) Students will be able to
GE3252	TAMIL AND TECHNOLOGY	C116.1: சங்க கால தமிழர்களின் தொழில் நுட்பத்தை மாணவர்கள் புரிந்துகொள்ள வசதி செய்தல்.
		C116.2: சங்க காலத்தின் நெசவு மற்றும் பீங்கான் தொழில் நுட்பத்தை மாணவர்கள் புரிந்துகொள்ள வசதி செய்தல்.
		C116.3: சங்க காலத் தமிழர்களின் வடிவமைப்பு தொழில்நுட்பம் பற்றிய விழிப்புணர்வை ஏற்படுத்துதல்.
		C116.4: பண்டைய கால உற்பத்தி தொழில்நுட்பத்தின் அனைத்து நிலைகளையும் வேற்படுத்தி அறிய மாணவர்களுக்கு உதவுதல்.
		C116.5: விவசாயம் மற்றும் நீர்ப்பாசன தொழில்நுட்பத்தின் பண்டைய அறிவைப் புரிந்துக் கொள்ள செய்தல்.
		C116.6: தமிழ் மொழியின் டிஜிட்டல் மயமாக்கல் பற்றிப் புரிந்துக் கொள்ள செய்தல்.

CO-POMAPPING

COs	POs												PSO		
	PO I	P02	P03	P04	POS	P06	P07	P08	P09	P0to	PO11	PO12	PSOI	PS02	PS03
C116.1	2	2	1	1	1	1	-	-	-	-	1	1	-	-	-
C116.2	2	2	1	1	1	1	-	-	-	-	1	1	-	-	-
C116.3	2	2	1	1	1	1	-	-	-	-	1	1	-	-	-
C116.4	2	2	1	1	1	1	-	-	-	-	1	1	-	-	-
C116.5	2	2	1	1	1	1	-	-	-	-	1	1	-	-	-
C116.6	2	2	1	1	1	1	-	-	-	-	1	1	-	-	-
C116.7	2	2	1	1	1	1	-	-	-	-	1	1	-	-	-

*3-Highcorrelation;2-Mediumcorrelation;1-Lowcorrelation


Dr. G. Balakrishnan, M.E., Ph.D.,
 Principal
 Indra Ganesan College of Engineering
 IG Valley, Madurai Main Road
 Manikandam, Trichy-620 012

COURSE OUTCOMES-REGULATIONS 2021

Course Code	Course Name	Course Outcome (CO) Students will be able to
GE3271	ENGINEERING PRACTICES LABORATORY	C117.1: Wiring various electrical joints in common household electrical wire work.
		C117.2: Soldering and testing simple electronic circuits; Assembling and testing simple electronic components on PCB.
		C117.3: Connecting various basic pipe fittings like valves, taps, coupling, unions, reducers, elbows and other components which are commonly used in household
		C117.4: Solder and test simple electronic circuits; Assemble and test simple electronic components on PCB
		C117.5: Draw pipe line plan; lay and connect various pipe fittings used in common household plumbing work; Saw; plan; make joints in wood materials used in common household wood work
		C117.6: Wire various electrical joints in common household electrical wire work.

CO-POMAPPING

COs	POs												PSO		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C117.1	3	2	2	2	-	1	1	-	1	1	-	-	-	-	1
C117.2	3	2	2	2	-	1	1	-	1	1	-	-	-	-	1
C117.3	3	2	2	2	-	1	1	-	1	1	-	-	-	-	1
C117.4	3	2	2	2	-	1	1	-	1	1	-	-	-	-	1
C117.5	3	2	2	2	-	1	1	-	1	1	-	-	-	-	1
C117.6	3	2	2	2	-	1	1	-	1	1	-	-	-	-	1
C117.7	3	2	2	2	-	1	1	-	1	1	-	-	-	-	1

Dr. G. Balakrishnan, M.E., Ph.D.,

Principal

Indra Ganesan College of Engineering
IG Valley, Madurai Main Road
Manikandam, Trichy-620 012.

*3-High correlation; 2-Medium correlation; 1-Low correlation

COURSE OUTCOMES-REGULATIONS 2021

Course Code	CourseName	CourseOutcome(CO) Students will be able to
AD3271	DATA STRUCTURES DESIGN LABORATORY	C118.1: Implement ADTs as Python classes
		C118.2: Design, implement, and analyse linear data structures, such as lists, queues, and stacks, according to the needs of different applications
		C118.3: Design, implement, and analyse efficient tree structures to meet requirements such as searching, indexing, and sorting
		C118.4: Model problems as graph problems and implement efficient graph algorithms to solve them
		C118.5: To implement sorting, searching and hashing algorithms
		C118.6: To solve problems using tree and graph structures

CO-POMAPPING

COs	POs												PSO		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C118.1	3	2	2	2	-	1	1	-	1	1	-	-	-	-	1
C118.2	3	2	2	2	-	1	1	-	1	1	-	-	-	-	1
C118.3	3	2	2	2	-	1	1	-	1	1	-	-	-	-	1
C118.4	3	2	2	2	-	1	1	-	1	1	-	-	-	-	1
C118.5	3	2	2	2	-	1	1	-	1	1	-	-	-	-	1
C118.6	3	2	2	2	-	1	1	-	1	1	-	-	-	-	1
C118.7	3	2	2	2	-	1	1	-	1	1	-	-	-	-	1

***3-High correlation; 2-Medium correlation; 1-Low correlation**


Dr. G. Balakrishnan, M.E., Ph.D.,
 Principal
 Indra Ganesan College of Engineering
 IG Valley, Madurai Main Road
 Manikandam, Trichy-620 012.


COURSE OUTCOMES-REGULATIONS 2021

Course Code	Course Name	Course Outcome (CO) Students will be able to
GE3272	COMMUNICATION LABORATORY	C119.1: Speak effectively in group discussions held in a formal/semi formal contexts
		C119.2: Discuss, analyse and present concepts and problems from various perspectives to arrive at suitable solutions
		C119.3: Write emails, letters and effective job applications.
		C119.4: Write critical reports to convey data and information with clarity and precision
		C119.5: Give appropriate instructions and recommendations for safe execution of tasks
		C119.6: To be able to communicate effectively through formal and informal writing

CO-POMAPPING

COs	POs												PSO		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C119.1	3	2	2	1	-	1	1	-	1	1	-	-	1	-	-
C119.2	3	2	2	1	-	1	1	-	1	1	-	-	1	-	-
C119.3	3	2	2	1	-	1	1	-	1	1	-	-	1	-	-
C119.4	3	2	2	1	-	1	1	-	1	1	-	-	1	-	-
C119.5	3	2	2	1	-	1	1	-	1	1	-	-	1	-	-
C119.6	3	2	2	1	-	1	1	-	1	1	-	-	1	-	-
C119.7	3	2	2	1	-	1	1	-	1	1	-	-	1	-	-

*3-High correlation; 2-Medium correlation; 1-Low correlation


Dr. G. Balakrishnan, M.E., Ph.D.,
 Principal
 Indra Ganesan College of Engineering
 IG Valley, Madurai Main Road
 Manikandam, Trichy-620 012.