Bharath Institute of Higher Education and Research

[Declared Under Section 3 of UGC Act, 1956]
Chennai – 600 073

INTERNAL QUALITY ASSURANCE CELL (IQAC)

DOCUMENTS SUBMISSION FORM

Date of Submission	22/12/2020
Type of Documents	Value Added Course program Report (online)
Description	Skill development on CNC lathe Machine
Enclosures	a) Requisition letter b) Circular c) Curriculum d) Schedule e) Attendance Sheet f) feedback form g) Certificate h) Image
No. of Pages	12
Submitted By	**Name** : R. HARIHARAN **Designation** : Assistant professor **Department** : Mechanical Engineering **Signature** :

For Office Use Only

Verified By:	K. Sakthivel	Sign:	Date: 22/12/20
Uploaded By:	K. S. Senthil Kumar	Sign:	Date: 22/12/20
File Name:	MECH - ME - VAC - 2020 - 2021 - 001		

Internal Quality Assurance Cell IQAC Selaiyur Chennai-73 BIHER

IQAC - BIHER

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Requisition Letter

Date: 12.11.2020

From

The HOD,

Department of Mechanical Engineering,

Bharath Institute of Higher Education and Research,

Selaiyur, Chennai.

To

The Dean Engineering,

Bharath Institute of Higher Education and Research,

Selaiyur, Chennai.

Respected Sir,

Sub: Requisition for conducting Value added course (online) – reg.

School of Mechanical Sciences has planned to conduct Value added course on "Skill Development on CNC Lathe Machine" on 9/12/2020. In this regard we kindly request you to grant permission for the same.

Thanking You

HOD/MECH

Dean Engineering

Head of the Department
Department of Mechanical Engineering
Bharath Institute of Higher Education and Research
(Dec.u/s 3 of UGC Act.1956)
Selaiyur, Chennai-600 073

DEAN
BHARATH INSTITUTE OF HIGHER EDUCATION & RESEARCH
(Declared as Deemed to be University U/S 3 of UGC Act. 1956)
Chennai-600 073. INDIA.

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Date: 16.11.2020

Department of Mechanical Engineering

Circular

The of Department of Mechanical Engineering, BIHER glad to conduct on five days value added program on "***Skill Development on CNC Lathe Machine***" from 09.12.2020 for 30 hours. Those who are interested to participate do register your name to the program coordinator.

All reregistered students must attend all the classes without fail. The students who are completed the course successfully with good score will get the course completion certificate from the institute/Department.

Resource person: Mr.S.Thirumavalavan and Mr.S.Nakkeeran

Maximum no. of registration Allowed – 60.

***First come first serve basis.**

Program coordinator

Mr.V.P.Durairaj

Mr.R J Golden Renjith Nimal

Department of Mechanical Engineering
BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH
Chennai-600 073

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Department of Mechanical Engineering

Skill Development on CNC Lathe Machine

OBJECTIVE:

- The aim of the subject is to provide make the students to understand the CNC.
- To emphasize the knowledge on the quality improvement, automation, and advanced manufacturing techniques to create the highest-caliber products quickly, efficiently, inexpensively, and in synchronization with the marketing, sales, and customer service of the company.

MODULE 1 **Advanced Manufacturing Processes** **(10Hrs)**

[DAY: 1]

The Subject deals with Advanced Manufacturing process viz. computer numerical control 5 axis machining, EDM. Various machine elements of CNC 5 Axis machining, CNC EDM Wire cut machining and CNC EDM Die sinker machining. Constructional features of these machines and differentiate between conventional and CNC machines. Illustrate the working principle and operation of these CNC machine

[DAY: 2]

Structure of CNC part programme and preparation of part programme for various machining operations. Usage of different programming cycles. Coordinate Systems used in CNC 5 axis machine. Execute part programme on CNC machines (Machining centre's and EDM's etc.). Preventive and periodical maintenance of CNC machines and Safety measures to be followed.

[DAY: 3]

Various machine elements of CNC turning machine & CNC Milling machines/Machining centres and their constructional features. Differentiate between conventional and CNC machines. Illustrate the working principle and operation of CNC machine. Structure of CNC part programme and preparation of part programme for various machining operations such as milling, drilling and turning and their simulation with software.

MODULE II CAD/CAM **(5 Hrs)**

[DAY: 4]

This Subject deals with Basics of Engineering Drawing, Orthographic projections, Isometric Projections. Introduction to AutoCAD, Co-ordinate system, 2D Drafting, 3D Modeling., Design need and requirements, Importance of Parametric constraints, Types of CAD software and their features, Necessity of CAD-CAM integration. Creating and Editing features, Sheet metal components, Surface modeling, Designing. Developing parametric modeling , Behavioral modeling, Mechanism simulation.

MODULE III

[DAY: 5] CNC Technology **(10 Hrs)**

CNC technology basics: Difference between CNC and conventional lathes. Advantages and disadvantages of CNC machines over conventional machines. Schematic diagram of CNC system. Axes convention. Working of parts explained using multimedia CNC teachware. Parts shown on machine.

Programming - sequence, formats, different codes, canned cycles. Absolute and incremental programming. Tool nose radius compensation (G41/42). Cutting tool materials, cutting tool geometry - insert types, holder types, insert cutting edge geometry, ISO nomenclature for turning tools, boring tools, inserts. Cutting parameters - cutting speed, feed rate, depth of cut, constant surface speed, limiting spindle speed. Process planning, tool selection and cutting parameters selection. Explained using multimedia CNC teachware and CNC machine simulator.
CNC part programming with simple exercises and various programming codes. Practice on CNC machine simulator. CNC machining center operation in various modes: jog, single block, auto, MDI, edit, etc. Program entry. Setting of tool offsets, entry of tool radius. Practice on CNC machine simulator.

MODULE IV

[DAY: 6] **(5 Hrs)**

Usage of different programming cycles. CNC Grinding machine construction and its elements, CNC Part programming on Grinding machine. Coordinate Systems used in CNC Grinding. Execute part programme on CNC machines (Machining centre's and Turning centre's, Grinding machines etc.). Preventive and periodical maintenance of CNC machines and Safety measures to be followed.

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Department of Mechanical Engineering
One Week Value added Program on "*Skill Development on CNC Lathe Machine*"
9th Dec to 15th Dec 2020

Date	Morning Session (9 AM – 12 PM)	Afternoon Session (1:30 PM – 3:30 PM)
09 – 12 – 2020	**Program Inauguration** **Mr.S.Thirumavalavan** *computer numerical control 5 axis machining, EDM. Various machine elements of CNC 5 Axis machining, CNC EDM Wire cut machining and CNC EDM Die sinker machining.*	**Mr.S.Nakkeeran** *Constructional features of these machines and differentiate between conventional and CNC machines. Illustrate the working principle and operation of these CNC machine*
10 – 12 – 2020	**Mr.S.Nakkeeran** *Structure of CNC part programme and preparation of part programme for various machining operations. Usage of different programming cycles. Coordinate Systems used in CNC 5 axis machine*	**Mr.S.Thirumavalavan** *Execute part programme on CNC machines (Machining centre's and EDM's etc.). Preventive and periodical maintenance of CNC machines and Safety measures to be followed.*
11 – 12 – 2020	**Mr.S.Thirumavalavan** *Various machine elements of CNC turning machine & CNC Milling machines/Machining centres and their constructional features. Differentiate between conventional and CNC machines. Illustrate the working principle and operation of CNC machine.*	**Mr.S.Nakkeeran** *Structure of CNC part programme and preparation of part programme for various machining operations such as milling, drilling and turning and their simulation with software.*
12 – 12 – 2020	**Mr.S.Nakkeeran** *Isometric Projections. Introduction to AutoCAD, Co-ordinate system, 2D Drafting, 3D Modeling., Design need and requirements, Importance of Parametric constraints, Types of CAD software and their features, Necessity of CAD-CAM integration.*	**Mr.S.Thirumavalavan** *Creating and Editing features, Sheet metal components, Surface modeling, Designing, Developing parametric modeling, Behavioral modeling, and Mechanism simulation.*
14 – 12 – 2020	**Mr.S.Thirumavalavan** *CNC technology basics: Difference between CNC and conventional lathes. Advantages and disadvantages of CNC machines over conventional machines. Schematic diagram of CNC system. Axes convention. Working of parts explained using multimedia CNC teachware. Parts shown on machine.*	**Mr.S.Nakkeeran** *Programming - sequence, formats, different codes, canned cycles. Absolute and incremental programming. Tool nose radius compensation (G41/42). Cutting tool materials, cutting tool geometry - insert types, holder types, insert cutting edge geometry.*
15 – 12 – 2020	**Mr.S.Nakkeeran** *Usage of different programming cycles. CNC Grinding machine construction and its elements, CNC Part programming on Grinding machine. Coordinate Systems used in CNC Grinding. Execute part programme on CNC machines (Machining centre's and Turning centre's, Grinding machines etc.).*	**Mr.S.Thirumavalavan** *Preventive and periodical maintenance of CNC machines and Safety measures to be followed.* ***Quiz/ Feedback / valedictory Session***

Program Coordinator:
Mr.V.P.Durairaj
Mr.R J Golden Renjith Nimal
Assistant Professor,
E-Mail: vpdurairaj57@gmail.com
goldenrenjith.mech@bharathuniv.ac.in

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

09-12-2020

Skill Development on CNC Lathe Machine

Attendance sheet

S.No	Reg.No	Name	Department
1.	U13ME005	ABHISHEK MARKI	Mechanical Engineering
2.	U13ME006	ABINASH MISHRA	Mechanical Engineering
3.	U13ME007	ACHARI RAGHU GANAPATHY	Mechanical Engineering
4.	U13ME008	ADARSH GIRI	Mechanical Engineering
5.	U13ME009	ADITYA ANANDKAR	Mechanical Engineering
6.	U13ME010	ADITYA RAJ	Mechanical Engineering
7.	U13ME011	AISHWARY PRATAP SINGH	Mechanical Engineering
8.	U13ME012	AJIT KUMAR KESHRI	Mechanical Engineering
9.	U13ME013	AJMAL ALIKHAN M	Mechanical Engineering
10.	U13ME014	AKASH PANDEY	Mechanical Engineering
11.	U13ME027	AMLAN BHUYAN	Mechanical Engineering
12.	U13ME028	AMUDHAN R	Mechanical Engineering
13.	U13ME029	ANIL KUMAR GOPE	Mechanical Engineering
14.	U13ME030	ANKIT	Mechanical Engineering
15.	U13ME031	ANKIT KUMAR	Mechanical Engineering
16.	U13ME032	ANKIT PRAVAKAR	Mechanical Engineering

17.	U13ME033	ANMOL PURTY	Mechanical Engineering
18.	U13ME034	ARAVINDAN R	Mechanical Engineering
19.	U13ME036	ARUL SELVAN K	Mechanical Engineering
20.	U13ME037	ARUN KUMAR YADAV	Mechanical Engineering
21.	U13ME121	MOHAMED SUHAIL S	Mechanical Engineering
22.	U13ME122	MOHAMED YASIN K	Mechanical Engineering
23.	U13ME123	MOHAMMAD JAWED RAIN	Mechanical Engineering
24.	U13ME124	MOHAMMED IBRAHIM N	Mechanical Engineering
25.	U13ME125	MOHAMMED IMRAN BAIG I	Mechanical Engineering
26.	U13ME159	RAHUL RAM R	Mechanical Engineering
27.	U13ME160	RAJA BAL	Mechanical Engineering
28.	U13ME161	RAJAN KUMAR	Mechanical Engineering
29.	U13ME162	RAJIYAPRABU P	Mechanical Engineering
30.	U13ME163	RAJMOHAN KUMAR	Mechanical Engineering
31.	U13ME713	SANDEEP.S	Mechanical Engineering
32.	U13ME714	KASINATHAN R	Mechanical Engineering
33.	U13ME717	A.KARTHIKEYAN	Mechanical Engineering
34.	U13ME719	DIPTADIP ROY	Mechanical Engineering
35.	U13ME722	RAMAIAHGARI HARI PRASAD	Mechanical Engineering
36.	U14ME003	ABHILASH .S	Mechanical Engineering
37.	U14ME004	ABHISHEK	Mechanical Engineering
38.	U14ME005	ABHISHEK KUMAR	Mechanical Engineering

39.	U14ME006	ABISHEK .N	Mechanical Engineering
40.	U14ME007	ABI SHANTH.C	Mechanical Engineering
41.	U14ME161	JYOTI RANJAN BADU	Mechanical Engineering
42.	U14ME162	KANCHARLA HARISH	Mechanical Engineering
43.	U14ME168	KARTHICK .S	Mechanical Engineering
44.	U14ME169	KARUNAGARAN.K	Mechanical Engineering
45.	U14ME170	KATTA.SAICHAND	Mechanical Engineering
46.	U14ME171	KESHAVAN.R	Mechanical Engineering
47.	U14ME172	KILLO SAI VIJENDRA PADAL	Mechanical Engineering
48.	U14ME175	KONISHETTY PHANEENDRA	Mechanical Engineering
49.	U14ME176	KORADA PRABHAKAR RAO	Mechanical Engineering
50.	U14ME177	KORNU YERRAMNAIDU	Mechanical Engineering
51.	U14ME717	MOHANASUNDRAM M	Mechanical Engineering
52.	U14ME718	SHOAIBAHMED WANTMORE	Mechanical Engineering
53.	U14ME719	DILLIBABU P	Mechanical Engineering
54.	U14ME720	BALASUBRAMANI S	Mechanical Engineering
55.	U14ME721	AVINASH R	Mechanical Engineering
56.	U14ME722	IMRAN KHAN Y	Mechanical Engineering

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

FEEDBACK FORM

❖ As part of a continuing improvement process, our college appreciates suggestions and inputs regarding the institution. We request you to sincerely answer these questions under assurance of complete confidentiality. Your interest in making our institution better is greatly appreciated.

Name of Department : Mechanical Engineering

Date : 09/12/2020

Event / Speaker Name : Skill development on CNC Lathe M/c

- Please rate the session on the scale indicated. Your comments are most appreciated.

S.NO	Parameters	Below Average	Average	Good	Excellent	Outstanding
1.	**The Topic**					
	The choice of topic was relevant to me				✓	
2.	**The Lecturer / Speaker**					
	Self-confidence				✓	
	Communication skills				✓	
	Doubts/ queries were answered satisfactorily				✓	
3.	**The Content (Topic)**					
	Refers to latest developments in the field				✓	
	Career oriented					✓
	Innovative learning, if any					✓

- Overall, how would you rate this Guest Lecture / Workshop / Seminar / Event/Value added course?

1. Below Average	2. Average	3. Good	4. Excellent	5. Outstanding
			✓	

- Comments (If any): good

Department of Mechanical Engineering
BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH
Chennai-600 073

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

FEEDBACK FORM

❖ As part of a continuing improvement process, our college appreciates suggestions and inputs regarding the institution. We request you to sincerely answer these questions under assurance of complete confidentiality. Your interest in making our institution better is greatly appreciated.

Name of Department : Mechanical Engineering

Date : 09.12.2020

Event / Speaker Name : Skill Development on CNC Lathe machine

- Please rate the session on the scale indicated. Your comments are most appreciated.

S.NO	Parameters	Below Average	Average	Good	Excellent	Outstanding
1.	**The Topic**				✓	
	The choice of topic was relevant to me					✓
2.	**The Lecturer / Speaker**					✓
	Self-confidence					✓
	Communication skills					✓
	Doubts/ queries were answered satisfactorily					✓
3.	**The Content (Topic)**					
	Refers to latest developments in the field					✓
	Career oriented					✓
	Innovative learning, if any					✓

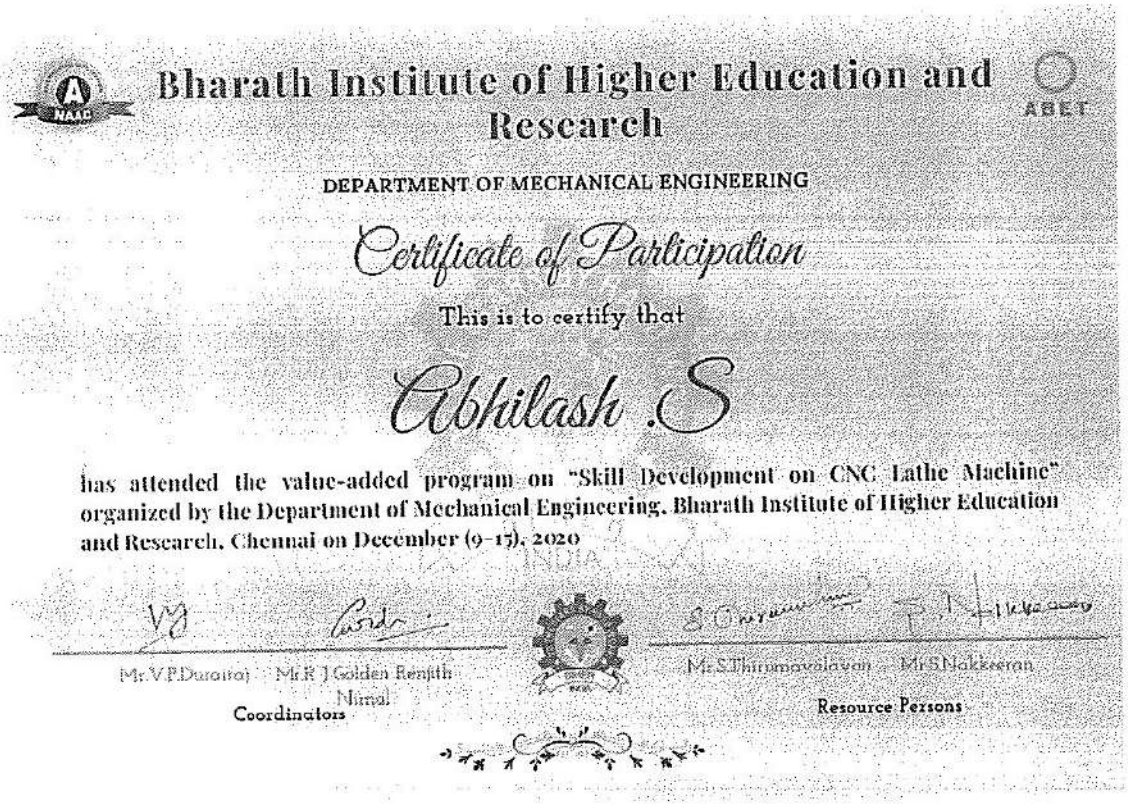
- Overall, how would you rate this Guest Lecture / Workshop / Seminar / Event/Value added course?

1. Below Average	2. Average	3. Good	4. Excellent	5. Outstanding
				5 ✓

- Comments (If any): The Presentation was Very Good!

Department of Mechanical Engineering
BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH
Chennai-600 073

Certificate



Bharath Institute of Higher Education and Research

DEPARTMENT OF MECHANICAL ENGINEERING

Certificate of Participation

This is to certify that

Abhilash .S

has attended the value-added program on "Skill Development on CNC Lathe Machine" organized by the Department of Mechanical Engineering, Bharath Institute of Higher Education and Research, Chennai on December (9-15), 2020

Mr.V.P.Durairaj Mr.R.J.Golden Renjith Nimal

Coordinators

Mr.S.Thirumavalavan Mr.S.Nakkeeran

Resource Persons

Bharath Institute of Higher Education and Research

[Declared Under Section 3 of UGC Act, 1956]
Chennai – 600 073

INTERNAL QUALITY ASSURANCE CELL (IQAC)

DOCUMENTS SUBMISSION FORM

Date of Submission	22/12/2020
Type of Documents	Value Added Course program Report (online)
Description	Introduction to AutoCAD in Geological Applications
Enclosures	a) Requisition letter b) Circular c) Curriculum d) Schedule e) Attendance Sheet f) Feedback form g) Certificate h) Image
No. of Pages	12
Submitted By	**Name** : R. HARIHARAN **Designation** : Assistant professor **Department** : Mechanical Engineering **Signature** :

For Office Use Only

Verified By:	K. Sakthivel	Sign:	Date: 22/12/15
Uploaded By:	K. S. Senthil Kumar	Sign:	Date: 22/12/15
File Name:	MECH - ME - VAC - 2020 - 2021 - 002		

Internal Quality Assurance Cell IQAC Selaiyur Chennai-73 BIHER

IQAC - BIHER

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Requisition Letter

Date: 12.11.2020

From

The HOD,

Department of Mechanical Engineering,

Bharath Institute of Higher Education and Research,

Selaiyur, Chennai.

To

The Dean Engineering,

Bharath Institute of Higher Education and Research,

Selaiyur, Chennai.

Respected Sir,

Sub: Requisition for conducting online Value added course – reg.

School of Mechanical Sciences has planned to conduct Value added course on "Introduction to AutoCAD in Geological Applications" on 9/12/2020. In this regard we kindly request you to grant permission for the same.

Thanking You

Ramadoss

HOD/MECH

Dean Engineering

Head of the Department
Department of Mechanical Engineering
Bharath Institute of Higher Education and Research
(Dec.u/s 3 of UGC Act.1956)
Selaiyur, Chennai-600 073

DEAN
BHARATH INSTITUTE OF HIGHER EDUCATION & RESEARCH
(Declared as Deemed to be University U/S 3 of UGC Act. 1956)
Chennai-600 073, INDIA.

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Date: 16.11.2015

Department of Mechanical Engineering

Circular

The of Department of Mechanical Engineering, BIHER glad to conduct online 5 days value added program on "***Introduction to AutoCAD In Geological Applications***" from 09.12.2020 for 30 hours. Those who are interested to participate do register your name to the program coordinator.

Al reregistered students must attend all the classes without fail. The students who are completed the course successfully with good score will get the course completion certificate from the institute/Department.

Resource person: Mr.R.Hariharan and Mr.R J Golden Renjith Nimal

Maximum no. of registration Allowed – 60.

***First come first serve basis.**

Program coordinator

Mr.V.Jose Ananth Vino

Mr.N. Lenin Rakesh

Department of Mechanical Engineering
BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH
Chennai-600 073

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Department of Mechanical Engineering

Introduction to AutoCAD in Geological Applications

OBJECTIVE:

- To demonstrate understanding of computer science fundamentals.
- To demonstrate programming proficiency in a modern language.
- To demonstrate fundamental software engineering skills on a non-trivial project to the satisfaction of a client.
- To demonstrate the ability to communicate effectively.

MODULE I Introduction To Computer Graphics Fundamentals **(5Hrs)**
[DAY: 1]

Output primitives (points, lines, curves etc.,), 2-D & 3-D transformation (Translation, scaling, rotation) windowing - view ports - clipping transformation. Concepts in CAD - Elements needed for designing.

Curves and Surfaces Modeling: Introduction to curves - Analytical curves: line, circle and conics – synthetic curves: Hermite cubic spline- Bezier curve and B-Spline curve – curve manipulations. Introduction to surfaces - Analytical surfaces: Plane surface, ruled surface, surface of revolution and tabulated cylinder – synthetic surfaces: Hermite bicubic surface- Bezier surface and B-Spline surface- surface manipulations.

MODULE II Engineering Geology **(5Hrs)**

[DAY: 2]
Engineering geology in theory and practice. Geological structures and discontinuities, engineering properties of rocks, engineering properties of jointed rocks, geo mechanical classification of rock mass. Physic mechanical properties of building stones and aggregate, alkali aggregate reaction. Geotechnical investigation for dam site, reservoir site; geotechnical study for road alignment; geotechnical evaluation of tunnel alignment, methods of tunneling, classification of ground for tunneling purposes, various types of support system; geotechnical investigations for bridge foundation and building foundation; Rock burst and bumps.

MODULE III Coal Geology **(5Hrs)**

[DAY: 3]
Coal and its properties: Different varieties and ranks of coal. Origin of coal.Type of depositional processes.Coalification process and its causes.Introduction to Organic Petrology and Organic Geochemistry. Sediments closely associated with coal (coal balls, tonsteins, seat-earths, under-clays, fire-clays and soils). Lithotypes, microlithotypes and macerals: their physical, chemical

and optical properties. Maceral analysis of coal: Mineral and organic matter in coal. Petrographical methods and tools of examination. Application of coal geology in hydrocarbon exploration

MODULE III Structural Geology **(5 Hrs)**

[DAY: 4]

Methods of constructing profiles of folds: Convolute and evolute methods, Concentric-arc method, Kink-style construction, Dip-isogon method, Down-plunge projection method Tectonites: Different types and their significance. Petrofabric analysis.Relationship between deformation and metamorphism and criteria for recognition.Relative dating of orogenic belts. Principles of Structural Analysis. Interference patterns in superposed folding and structural geometry in superposed folding. Behavior of lineations in superposed deformations. Use of foliations and lineations in tectonic analysis.Different phases of analysis, analysis of slate belts with simple and multiple deformations.Mapping in gneiss terranes.Migmatite complexes, reworking of basement rocks, mantled gneiss domes.

MODULE IV Paleontology **(5 Hrs)**
[DAY: 5]

Definition and scope of paleobiology, process of fossilization, preservation potential of organisms. Elementary ideas about origin of life, evolution and fossil record. Systematic classification of organisms – their characters, environmental factors. Ontogeny and variation in fossil assemblages. Identification of fossils: methods of description and illustration; taxonomic categories and codes of systematic nomenclature. Morphology, environment and geological distribution of brachiopoda, mollusca, echinodermata, arthropoda, and anthozoa. Introduction to Palynology and paleobotany; morphology of typical Gondwana flora.

MODULE V Economic Geology **(5 Hrs)**

[DAY: 6]

Terminology: Syngenetic/epigenetic, stratiform/stratabound ores, Hypogene and supergene ores, ore and gangue minerals, grade and Tenor. Mode of occurrence and controls of ore deposition. Temporal pattern and distribution of types of ores through geologic time. Distribution and brief geological aspects of important Indian metallic and non-metallic deposits.

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Department of Mechanical Engineering

One Week Value added Program on "*Introduction to AutoCAD in Geological Applications*"

9th Dec to 15th Dec 2020

Date	Morning Session (9 AM – 12 PM)	Afternoon Session (1:30 PM – 3:30 PM)
09 – 12 – 2020	**Program Inauguration** **Mr.R.Hariharan** ***Introduction To Computer Graphics Fundamentals:*** *Output primitives (points, lines, curves etc.,), 2-D & 3-D transformation (Translation, scaling, rotation) windowing - view ports - clipping transformation. Concepts in CAD - Elements needed for designing.*	**Mr.R J Golden Renjith Nimal** ***Curves and Surfaces Modeling:*** *Introduction to curves - Analytical curves: line, circle and conics – synthetic curves: Hermite cubic spline- Bezier curve and B-Spline curve – curve manipulations. Introduction to surfaces.*
10 – 12 – 2020	**Mr.R J Golden Renjith Nimal** *Engineering geology in theory and practice. Geological structures and discontinuities, engineering properties of rocks, engineering properties of jointed rocks, geo mechanical classification of rock mass. Physic mechanical properties of building stones and aggregate, alkali aggregate reaction.*	**Mr.R.Hariharan** *geotechnical evaluation of tunnel alignment, methods of tunneling, classification of ground for tunneling purposes, various types of support system; geotechnical investigations for bridge foundation and building foundation; Rock burst and bumps.*
11 – 12 – 2020	**Mr.R.Hariharan** *Coal and its properties: Different varieties and ranks of coal. Origin of coal.Type of depositional processes.Coalification process and its causes.Introduction to Organic Petrology and Organic Geochemistry.*	**Mr.R J Golden Renjith Nimal** *Lithotypes, microlithotypes and macerals: their physical, chemical and optical properties. Maceral analysis of coal: Mineral and organic matter in coal.*
12 – 12 – 2020	**Mr.R J Golden Renjith Nimal** *Methods of constructing profiles of folds: Convolute and evolute methods, Concentric-arc method, Kink-style construction, Dip-isogon method, Down-plunge projection method Tectonites.*	**Mr.R.Hariharan** *Interference patterns in superposed folding and structural geometry in superposed folding. Behavior of lineations in superposed deformations. Use of foliations and lineations in tectonic analysis.*
14 – 12 – 2020	**Mr.R.Hariharan** *Definition and scope of paleobiology, process of fossilization, preservation potential of organisms. Elementary ideas about origin of life, evolution and fossil record. Systematic classification of organisms – their characters, environmental factors.*	**Mr.R J Golden Renjith Nimal** *Morphology, environment and geological distribution of brachiopoda, mollusca, echinodermata, arthropoda, and anthozoa. Introduction to Palynology and paleobotany; morphology of typical Gondwana flora.*
15 – 12 – 2020	**Mr.R J Golden Renjith Nimal** ***Terminology:*** *Syngenetic/epigenetic, stratiform/stratabound ores, Hypogene and supergene ores, ore and gangue minerals, grade and Tenor. Mode of occurrence and controls of ore deposition.*	**Mr.R.Hariharan** *Temporal pattern and distribution of types of ores through geologic time. Distribution and brief geological aspects of important Indian metallic and non-metallic deposits.* ***Quiz/ Feedback / valedictory Session***

Program Coordinator:
Mr.V.Jose Ananth Vino
Mr.N. Lenin Rakesh
Assistant Professor,
E-Mail: joseananth.mech@bharathuniv.ac.in
leninrakesh.mech@bharathuniv.ac.in

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

09-12-2020

Introduction to AutoCAD In Geological Applications

Attendance sheet

S.No	Reg.No	Name	Department
1.	U13ME016	AKHILESH KUMAR	Mechanical Engineering
2.	U13ME017	AKSAH KUMAR PATEL	Mechanical Engineering
3.	U13ME018	ALAKE DAHANGA	Mechanical Engineering
4.	U13ME019	ALI ASGAR KHAN	Mechanical Engineering
5.	U13ME020	ALKESH RAJ	Mechanical Engineering
6.	U13ME048	ASWIN K	Mechanical Engineering
7.	U13ME049	BALAJI P	Mechanical Engineering
8.	U13ME050	BHARATHKUMAR S	Mechanical Engineering
9.	U13ME051	BIJENDRA KUMAR SINGH	Mechanical Engineering
10.	U13ME052	BIKASH CHANDRA ROY	Mechanical Engineering
11.	U13ME094	JOHN CHARLES	Mechanical Engineering
12.	U13ME095	JOHN VICTOR M	Mechanical Engineering
13.	U13ME096	JOSEPH ROSARIO J	Mechanical Engineering
14.	U13ME097	KALIRAJAN S	Mechanical Engineering
15.	U13ME098	KANNADHASAN K	Mechanical Engineering
16.	U13ME142	PARAMESHWAR S	Mechanical Engineering

17.	U13ME143	PAVITR KUMAR	Mechanical Engineering
18.	U13ME144	PAWAN KUMAR SINGH	Mechanical Engineering
19.	U13ME145	PIYUSH MOHAN	Mechanical Engineering
20.	U13ME146	PRAKASH K	Mechanical Engineering
21.	U13ME149	PREETHAM ANANTHA PANDIAN	Mechanical Engineering
22.	U13ME150	PRITAM SANKAR DHUPAL	Mechanical Engineering
23.	U13ME071	DINESH KANNAN	Mechanical Engineering
24.	U13ME072	DINESH.M	Mechanical Engineering
25.	U13ME151	PRIYADARSHINI G	Mechanical Engineering
26.	U14ME331	SIVAKUMAR B	Mechanical Engineering
27.	U14ME332	SIVARAMAN.T	Mechanical Engineering
28.	U14ME333	SOMA SUNDARAM.L	Mechanical Engineering
29.	U14ME334	SOMU VASU	Mechanical Engineering
30.	U14ME335	SONAL PATHAK	Mechanical Engineering
31.	U14ME520	D HARSHA PRIYADARSHAN	Mechanical Engineering
32.	U14ME701	DEEP JYOTHI BHATTACHARJEE	Mechanical Engineering
33.	U14ME702	RAJ KUMAR.D	Mechanical Engineering
34.	U14ME241	PATNANA SAGAR	Mechanical Engineering
35.	U14ME242	PAUL JOSHUA.J	Mechanical Engineering
36.	U14ME180	KOTHA RAKESH	Mechanical Engineering
37.	U14ME181	KOUSHIK.R	Mechanical Engineering
38.	U14ME182	KRISHNA KUMAR DIWAKAR	Mechanical Engineering

39.	U14ME183	KUNDAN KUMAR GOND	Mechanical Engineering
40.	U14ME184	LOKESH.K	Mechanical Engineering
41.	U14ME047	ARUN.K	Mechanical Engineering
42.	U14ME048	MD ASGAR ANSARI	Mechanical Engineering
43.	U14ME049	ASGHARIMAM	Mechanical Engineering
44.	U14ME050	ASHOK KUMAR YADAV	Mechanical Engineering
45.	U14ME051	ASHOK YADAV.L.	Mechanical Engineering
46.	U14ME052	ASHUTOSH KUMAR JHA	Mechanical Engineering
47.	U14ME053	ASHWINI KUMAR RATHORE	Mechanical Engineering
48.	U14ME054	ASHWIN PRABHU.P	Mechanical Engineering
49.	U14ME055	ASIF HODA	Mechanical Engineering
50.	U14ME056	ATHIBAN BUCKLE DURAI.A	Mechanical Engineering
51.	U14ME011	ADITYA RAJ	Mechanical Engineering
52.	U14ME012	AFZAL IMAM	Mechanical Engineering

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

FEEDBACK FORM

❖ As part of a continuing improvement process, our college appreciates suggestions and inputs regarding the institution. We request you to sincerely answer these questions under assurance of complete confidentiality. Your interest in making our institution better is greatly appreciated.

Name of Department : Mechanical Engineering

Date : 9/12/2020

Event / Speaker Name : Introduction to Auto-CAD in Geological Application

- Please rate the session on the scale indicated. Your comments are most appreciated.

S.NO	Parameters	Below Average	Average	Good	Excellent	Outstanding
1.	**The Topic**					
	The choice of topic was relevant to me			✓		
2.	**The Lecturer / Speaker**					
	Self-confidence			✓		
	Communication skills				✓	
	Doubts/ queries were answered satisfactorily			✓		
3.	**The Content (Topic)**					
	Refers to latest developments in the field			✓		
	Career oriented			✓		
	Innovative learning, if any				✓	

- Overall, how would you rate this Guest Lecture / Workshop / Seminar / Event/Value added course?

1. Below Average	2. Average	3. Good	4. Excellent	5. Outstanding
			✓	

- Comments (If any): Lecture is very good.

Department of Mechanical Engineering
BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH
Chennai-600 073

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

FEEDBACK FORM

❖ As part of a continuing improvement process, our college appreciates suggestions and inputs regarding the institution. We request you to sincerely answer these questions under assurance of complete confidentiality. Your interest in making our institution better is greatly appreciated.

Name of Department : Mechanical Engineering

Date : 9/12/2020

Event / Speaker Name : Introduction to AutoCAD Geological Applications

- Please rate the session on the scale indicated. Your comments are most appreciated.

S.NO	Parameters	Below Average	Average	Good	Excellent	Outstanding
1.	**The Topic**					
	The choice of topic was relevant to me				✓	
2.	**The Lecturer / Speaker**					
	Self-confidence			✓		
	Communication skills				✓	
	Doubts/ queries were answered satisfactorily				✓	
3.	**The Content (Topic)**					
	Refers to latest developments in the field				✓	
	Career oriented				✓	
	Innovative learning, if any				✓	

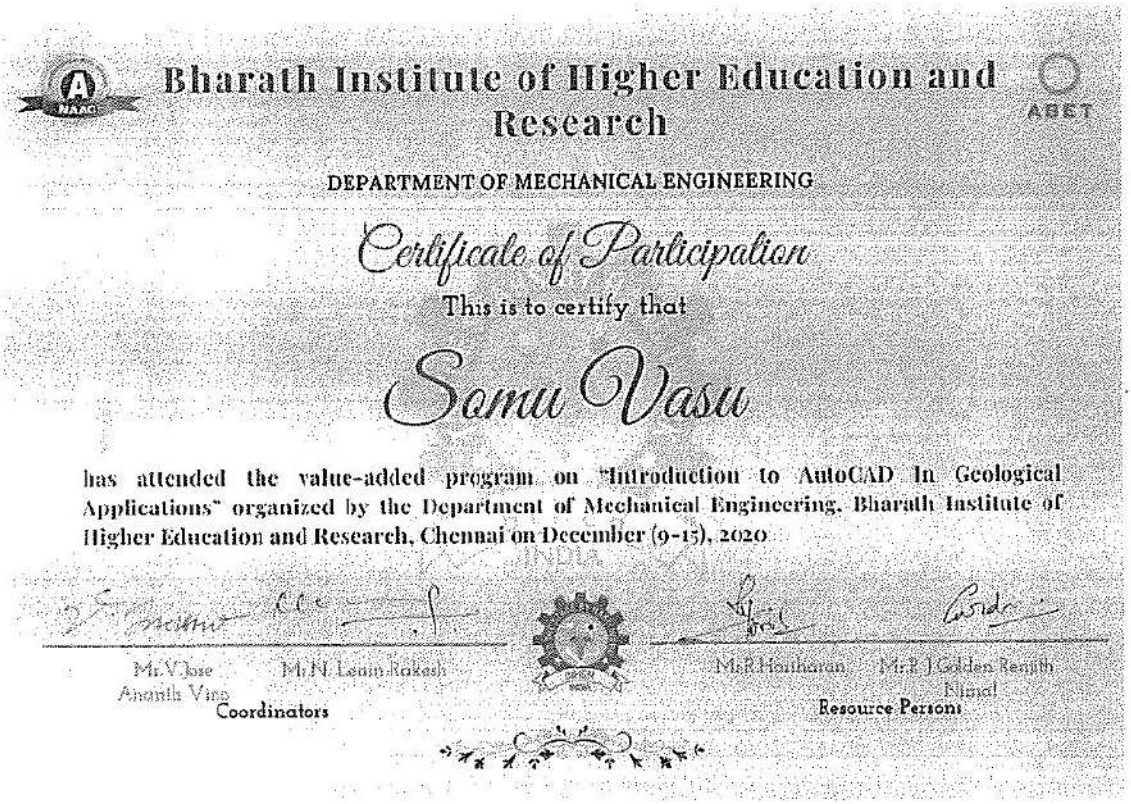
- Overall, how would you rate this Guest Lecture / Workshop / Seminar / Event/Value added course?

1. Below Average	2. Average	3. Good	4. Excellent	5. Outstanding
			✓	

- Comments (If any): very good Seminis.

Department of Mechanical Engineering
BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH
Chennai-600 073

Certificate



Bharath Institute of Higher Education and Research

DEPARTMENT OF MECHANICAL ENGINEERING

Certificate of Participation

This is to certify that

Somu Vasu

has attended the value-added program on "Introduction to AutoCAD In Geological Applications" organized by the Department of Mechanical Engineering, Bharath Institute of Higher Education and Research, Chennai on December (9-15), 2020

Mr.V.Jose Ananth Vinz — Mr.N.Leon Rakesh

Coordinators

Mr.R.Hariharan — Mr.P.J.Golden Renjith Nimal

Resource Persons

Bharath Institute of Higher Education and Research

[Declared Under Section 3 of UGC Act, 1956]
Chennai – 600 073

INTERNAL QUALITY ASSURANCE CELL (IQAC)

DOCUMENTS SUBMISSION FORM

Date of Submission	14/11/2020
Type of Documents	Value Added Course program Report (online)
Description	Setting up for PSCADMATLAB Co-Simulation
Enclosures	a) Requisition Letter
	b) Circulars
	c) Curriculams
	d) Schedule
	e) Attendance Sheet
	f) feed back form
	g) Certificate
	h) Image
No. of Pages	12
Submitted By	**Name** : R. Hariharan
	Designation : Assistant professor
	Department : Mechanical Engineering
	Signature :

For Office Use Only

Verified By:	K. Sakthivel	Sign:	Date: 14/11/2020
Uploaded By:	K. S. Senthil Kumar	Sign:	Date: 14/11/2020
File Name:	MECH-ME-2020-2021-004		

Internal Quality Assurance Cell IQAC Selaiyur Chennai-73 BIHER

IQAC - BIHER

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Requisition Letter

Date: 14.10.2020

From

The HOD,

Department of Mechanical Engineering,

Bharath Institute of Higher Education and Research,

Selaiyur, Chennai.

To

The Dean Engineering,

Bharath Institute of Higher Education and Research,

Selaiyur, Chennai.

Respected Sir,

Sub: Requisition for conducting online Value added course – reg.

School of Mechanical Sciences has planned to conduct Value added course on "Setting up for PSCAD/MATLAB Co-simulation" on 1/11/2020. In this regard we kindly request you to grant permission for the same.

Thanking You

HOD/MECH

Head of the Department
Department of Mechanical Engineering
Bharath Institute of Higher Education and Research
(Dec.u/s 3 of UGC Act.1956)
Selaiyur, Chennai-600 073

Dean Engineering

DEAN
BHARATH INSTITUTE OF HIGHER EDUCATION & RESEARCH
(Declared as Deemed to be University U/S 3 of UGC Act. 1956)
Chennai-600 073, INDIA.

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Date: 17.10.2020

Department of Mechanical Engineering

Circular

The of Department of Mechanical Engineering, BIHER glad to conduct on five days value added program on "***Setting up for PSCADMATLAB Co-simulation***" from 01.11.2020 for 30 hours. Those who are interested to participate do register your name to the program coordinator.

All reregistered students must attend all the classes without fail. The students who are completed the course successfully with good score will get the course completion certificate from the institute/Department.

Resource person: Mr.D.Ravi and Mrs.C.M.Meenakshi

Maximum no. of registration Allowed – 60.

***First come first serve basis.**

Program coordinator

Mrs.V.Balambica

G.Sucharitha

Department of Mechanical Engineering
BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH
Chennai-600 073

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Department of Mechanical Engineering

Setting up for PSCAD/MATLAB Co-simulation

OBJECTIVE:

- To demonstrate understanding of PSCAD.
- To demonstrate basic instructions for PSCAD-MATLAB Interfacing

MODULE I PSCAD Help **(5Hrs)**
[DAY: 1]

Detailed Mat lab procedures may be found in the PSCAD User's Guide or PSCAD On-line help, which may be accessed by pressing F1 in the PSCAD workspace.

MODULE II Setting up for PSCAD/MATLAB Co-simulation **(10Hrs)**
[DAY: 2]

1. PSCAD-MATLAB interface is supported with the PSCAD Professional Edition and with the PSCAD Educational Edition.
2. The task of creating new components is supported with the PSCAD Professional Edition and the PSCAD Educational Edition.

3. MATLAB must be installed prior to PSCAD. If PSCAD was installed prior to MATLAB, PSCAD will likely need to be reinstalled so that it recognizes the links and dependencies to MATLAB, its libraries and paths.

4. A commercial compiler, such as the **Intel Fortran Compiler** (preferred) is required. The Intel Fortran Compiler also requires a suitable version of Microsoft Visual Studio. **Compaq Visual Fortran 6.0** or higher may be considered, however, this software has not been developed for years, so there might be some software compatibility and installation issues.

[DAY: 3]

5. A user-defined component must be created by the user, to use the MATLAB interface feature; a "MATLAB Interface" component is not available in the PSCAD Master Library.

6. Before starting to run a PSCAD-MATLAB interface simulation, PSCAD should be directed to the MATLAB shared library folder. The shared libraries of MATLAB R200X are located at: %MatlabRoot%\extern\lib\win32\microsoft .In order to specify the above path for PSCAD, select Version 5 under Workspace Settings | MATLAB | Installed Version. Then enter the **complete** path of the shared libraries. (e.g. C:\Program files\Matlab\R2008a\extern\lib\win32\microsoft) under 'Library Path'.

7. If you are creating a new model which uses the MATLAB interface function, your model must be linked to the installed MATLAB libraries by activating the corresponding checkbox on Project Settings

MODULE II Simple PSCAD-MATLAB Interfacing Examples (10 Hrs)

[DAY: 4]

A few PSCAD-MATLAB interfacing examples are provided in "%PSCAD FOLDER%\examples\matlab". In each of those cases, locate a block specified as "New Matlab Interface". The key subroutine for using the MATLAB interface feature is 'MLAB_INT' (see PSCAD/EMTDC User's Guide).

[DAY: 5]

Also, proper use of 'STORF' and 'STORI' is required for exchanging variables between EMTDC and the MATLAB workspace. I personally found the user's guide and the provided examples very helpful when I was trying to create my first PSCAD-MATLAB Interface case. So, please first try the instructions and examples. I recommend that you explore the corresponding script code blocks in the given examples. If you still encounter ambiguities, our Support Desk will be glad to assist you (support@pscad.com).

MODULE III Applications (5 Hrs)

[DAY: 6]

PSCAD Simulation: This includes custom component design and assisting users with the analysis of specific simulation models.

- AC transients
- Fault and protection
- Transformer saturation
- Wind power
- FACTS
- Power quality

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Department of Mechanical Engineering
One Week Value added Program on "*Setting up for PSCAD/MATLAB Co-simulation*"
1st Nov to 7th Nov 2020

Date	Morning Session (9 AM – 12 PM)	Afternoon Session (1:30 PM – 3:30 PM)
01 – 11 – 2020	**Program Inauguration** **Mr.D.Ravi** *Introduction to PSCAD*	**Mrs.C.M.Meenakshi** **PSCAD Help:** *Detailed Mat lab procedures may be found in the PSCAD User's Guide or PSCAD On-line help, which may be accessed by pressing F1 in the PSCAD workspace.*
02 – 11 – 2020	**Mrs.C.M.Meenakshi** **Setting up for PSCAD/MATLAB Co-simulation:** *1. PSCAD-MATLAB interface is supported with the PSCAD Professional Edition and with the PSCAD Educational Edition.* *2. The task of creating new components is supported with the PSCAD Professional Edition and the PSCAD Educational Edition.*	**Mr.D.Ravi** *3. MATLAB must be installed prior to PSCAD. If PSCAD was installed prior to MATLAB, PSCAD will likely need to be reinstalled so that it recognizes the links and dependencies to MATLAB, its libraries and paths.* *4. A commercial compiler, such as the **Intel Fortran Compiler** (preferred) is required. The Intel Fortran Compiler also requires a suitable version of Microsoft Visual Studio. **Compaq Visual Fortran 6.0** or higher may be considered, however, this software has not been developed for years, so there might be some software compatibility and installation issues.*
03 – 11 – 2020	**Mr.D.Ravi** *5. A user-defined component must be created by the user, to use the MATLAB interface feature; a "MATLAB Interface" component is not available in the PSCAD Master Library.* *6. Before starting to run a PSCAD-MATLAB interface simulation, PSCAD should be directed to the MATLAB shared library folder. The shared libraries of MATLAB R200X are located.*	**Mrs.C.M.Meenakshi** *7. If you are creating a new model which uses the MATLAB interface function, your model must be linked to the installed MATLAB libraries by activating the corresponding checkbox on Project Settings*
04 – 11 – 2020	**Mrs.C.M.Meenakshi** *A few PSCAD-MATLAB interfacing examples are provided in "%PSCAD FOLDER%\examples\matlab". In each of those cases, locate a block specified as "New Matlab Interface".*	**Mr.D.Ravi** *The key subroutine for using the MATLAB interface feature is 'MLAB_INT' (see PSCAD/EMTDC User's Guide).*
05 – 11 – 2020	**Mr.D.Ravi** *proper use of 'STORF' and 'STORI' is required for exchanging variables between EMTDC and the MATLAB workspace.*	**Mrs.C.M.Meenakshi** *Practical Session- PSCAD*
07 – 11 – 2020	**Mrs.C.M.Meenakshi** *PSCAD Simulation: This includes custom component design and assisting users with the analysis of specific simulation models.*	*Quiz/ Feedback / valedictory Session*

Program Coordinator:
Mrs.V.Balambica
Mrs. G.Sucharitha
Assistant Professor,
E-Mail: balambicavenkatesan.d2624@gmail.com
saisuchi2002@gmail.com

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

01-11-2020

Setting up for PSCAD/MATLAB Co-simulation

Attendance sheet

S.No	Reg.No	Name	Department
1.	U13ME022	AMAN KUMAR	Mechanical Engineering
2.	U13ME023	AMARJEET KUMAR PATEL	Mechanical Engineering
3.	U13ME024	AMIT KUMAR PRASAD	Mechanical Engineering
4.	U13ME026	AMITH SHIL	Mechanical Engineering
5.	U13ME088	JACOB EVANSON SOLOMON E	Mechanical Engineering
6.	U13ME089	JAGAN S	Mechanical Engineering
7.	U13ME090	JAYAKRISHNAN K	Mechanical Engineering
8.	U13ME091	JEGAN A	Mechanical Engineering
9.	U13ME222	UTTAM KUMAR	Mechanical Engineering
10.	U13ME223	VAKIL KUMAR	Mechanical Engineering
11.	U14ME347	SURAJ KUMAR PRASAD	Mechanical Engineering
12.	U14ME348	SURCHIT GUPTA	Mechanical Engineering
13.	U14ME349	SURESH KUMAR.M	Mechanical Engineering
14.	U14ME350	SURIYA.R.	Mechanical Engineering
15.	U14ME351	SURLA BHEEMESWARA RAO	Mechanical Engineering
16.	U14ME420	VIKASH YADAV	Mechanical Engineering

17.	U14ME421	VAIRAMANIKANDAN.G S	Mechanical Engineering
18.	U14ME422	YADUVENDRA PRATAP SINGH	Mechanical Engineering
19.	U14ME501	THILLAI CHANDRAN .R	Mechanical Engineering
20.	U14ME502	VELIDI JNANA BHARGAV RAM	Mechanical Engineering
21.	U14ME724	SOUNDARRAJAN S	Mechanical Engineering
22.	U14ME725	JEGATHALAPRATHABAN L	Mechanical Engineering
23.	U14ME726	ABDUL SAMAD	Mechanical Engineering
24.	U14ME407	ZEYA MAHAMOOD	Mechanical Engineering
25.	U14ME408	ZISHAN ALI KHAN	Mechanical Engineering
26.	U14ME409	SHRI ANJAN TYOTI BORUAH	Mechanical Engineering
27.	U14ME410	VIGNESH AUROSHIKHAN. P	Mechanical Engineering
28.	U14ME337	SRAVAN KUMAR K	Mechanical Engineering
29.	U14ME338	SRIN A TH PAPA RAO.P.V.N.	Mechanical Engineering
30.	U14ME339	SRINATH.K	Mechanical Engineering
31.	U15ME003	ABISHEK A	Mechanical Engineering
32.	U15ME004	ABISHEK AHI A	Mechanical Engineering
33.	U15ME005	ADHAV KRISHNA B	Mechanical Engineering
34.	U15ME006	ADHITHYAN V	Mechanical Engineering
35.	U15ME018	ANISH A S	Mechanical Engineering
36.	U15ME019	ANKIT PAL	Mechanical Engineering
37.	U15ME020	ANUP KUMAR SRIVASTAWA	Mechanical Engineering
38.	U15ME083	JAVID AMEEN A	Mechanical Engineering

39.	U15ME239	SRI HARI PRASATH R	Mechanical Engineering
40.	U15ME240	SRIRAM K	Mechanical Engineering
41.	U15AM028	TARIGOPPALA NITHIN KUMAR	Automobile Engineering
42.	U15AM029	VIGNESH	Automobile Engineering
43.	U15AM030	VISHANTH	Automobile Engineering
44.	U15AM031	SURYA NARAYANAN	Automobile Engineering
45.	U15AM032	SATHIYANARAYANAN	Automobile Engineering
46.	U15AM033	PRAKASH	Automobile Engineering
47.	U15AM034	DERIN	Automobile Engineering
48.	U15AM501	MOHIT	Automobile Engineering
49.	U15AM502	AKASHARAVIND	Automobile Engineering
50.	U15AM503	VISHNUPRIYAN	Automobile Engineering
51.	U15MT008	OVIAN NICHOLA	Mechatronics
52.	U15MT010	TADIKONDA SAI TEJA	Mechatronics
53.	U15MT011	VIJAY	Mechatronics
54.	U15MT012	MOHAMMED MOIDEEN RIYAZ	Mechatronics
55.	U15MT013	RAJ KUMAR	Mechatronics

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

FEEDBACK FORM

❖ As part of a continuing improvement process, our college appreciates suggestions and inputs regarding the institution. We request you to sincerely answer these questions under assurance of complete confidentiality. Your interest in making our institution better is greatly appreciated.

Name of Department : MECHANICAL ENGINEERING

Date : 01.11.2020

Event / Speaker Name : Setting up for PS – CAD/ MATLAB Co-Simulation

- Please rate the session on the scale indicated. Your comments are most appreciated.

S.NO	Parameters	Below Average	Average	Good	Excellent	Outstanding
1.	**The Topic**					
	The choice of topic was relevant to me				✓	
2.	**The Lecturer / Speaker**					
	Self-confidence			✓		
	Communication skills				✓	
	Doubts/ queries were answered satisfactorily				✓	
3.	**The Content (Topic)**					
	Refers to latest developments in the field			✓		
	Career oriented				✓	
	Innovative learning, if any				✓	

- Overall, how would you rate this Guest Lecture / Workshop / Seminar / Event/Value added course?

1. Below Average	2. Average	3. Good	4. Excellent	5. Outstanding
			✓	

- Comments (If any): Excellent presentation

Department of Mechanical Engineering
BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

FEEDBACK FORM

❖ As part of a continuing improvement process, our college appreciates suggestions and inputs regarding the institution. We request you to sincerely answer these questions under assurance of complete confidentiality. Your interest in making our institution better is greatly appreciated.

Name of Department : Mechanical Engineering

Date : 1/11/2020

Event / Speaker Name : Setting up for PS - CAD / MATLAB Core Simulation

- Please rate the session on the scale indicated. Your comments are most appreciated.

S.NO	Parameters	Below Average	Average	Good	Excellent	Outstanding
1.	**The Topic**			✓		
	The choice of topic was relevant to me			✓		
2.	**The Lecturer / Speaker**					
	Self-confidence			✓		
	Communication skills			✓		
	Doubts/ queries were answered satisfactorily				✓	
3.	**The Content (Topic)**					
	Refers to latest developments in the field			✓		
	Career oriented				✓	
	Innovative learning, if any				✓	

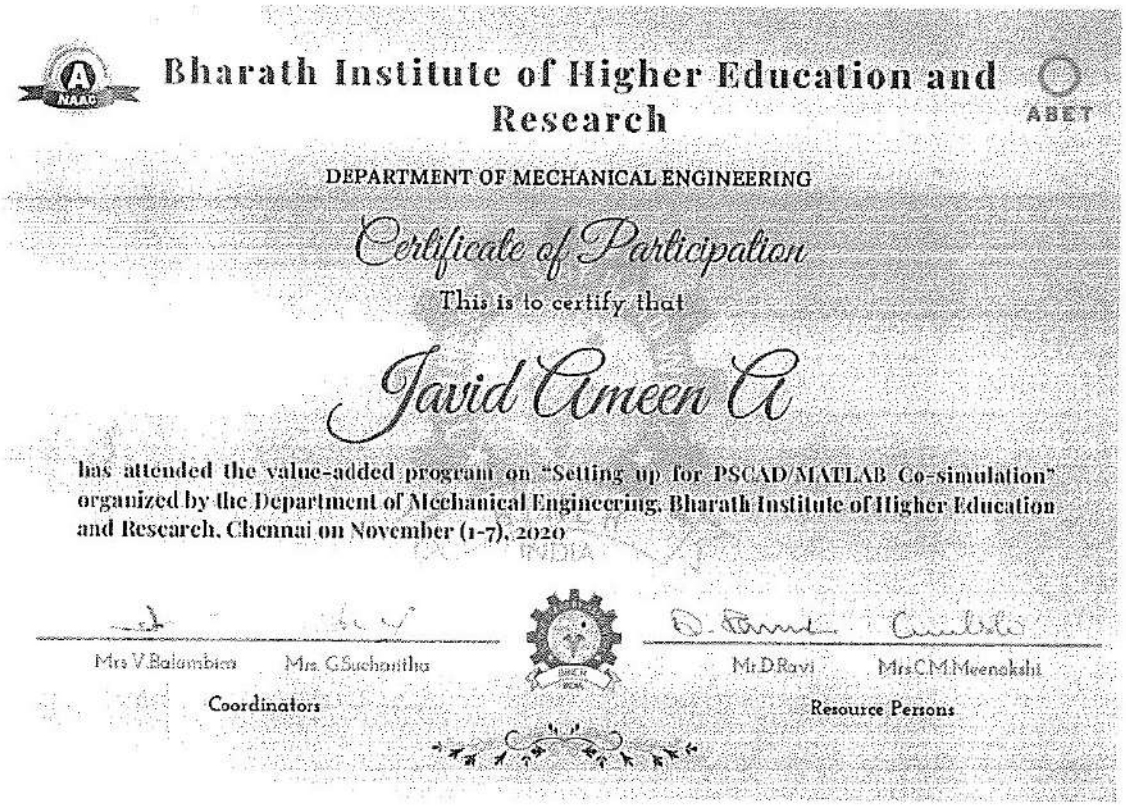
- Overall, how would you rate this Guest Lecture / Workshop / Seminar / Event/Value added course?

1. Below Average	2. Average	3. Good	4. Excellent	5. Outstanding
			✓	

- Comments (If any): The Lecture is good and is very relevent to our course.

Department of Mechanical Engineering
BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH
Chennai-600 073

Certificate



Bharath Institute of Higher Education and Research

ABET

DEPARTMENT OF MECHANICAL ENGINEERING

Certificate of Participation

This is to certify that

Javid Ameen A

has attended the value-added program on "Setting up for PSCAD/MATLAB Co-simulation" organized by the Department of Mechanical Engineering, Bharath Institute of Higher Education and Research, Chennai on November (1-7), 2020

Mrs V.Balambica Mrs. G.Suchaitha — Coordinators

Mr.D.Ravi Mrs.C.M.Meenakshi — Resource Persons

Bharath Institute of Higher Education and Research

[Declared Under Section 3 of UGC Act, 1956]
Chennai – 600 073

INTERNAL QUALITY ASSURANCE CELL (IQAC)

DOCUMENTS SUBMISSION FORM

Date of Submission	19/9/2020	
Type of Documents	Value Added (online) Course programme Report	
Description	Introduction to CNC programming Using G-Code	
Enclosures	a)	Requisition letter
	b)	Circular
	c)	Curriculum
	d)	Schedule
	e)	Attendence sheet
	f)	feedback form
	g)	Certificate
	h)	Image
No. of Pages	13	
Submitted By	**Name :**	R. Hariharan
	Designation :	Asst. professor
	Department :	Mechanical Engineering
	Signature :	[signature]

For Office Use Only

Verified By:	K. Sakthivel	Sign:	[signature]	Date:	19/9/2020
Uploaded By:	K. S. Senthil Kumar	Sign:	[signature]	Date:	19/9/2020
File Name:	MECH - ME - 2020 - 2021 - 003				

Internal Quality Assurance IQAC Selaiyur Chennai * BIHER *

IQAC - BIHER

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Requisition Letter

Date: 12.08.2020

From

The HOD,

Department of Mechanical Engineering,

Bharath Institute of Higher Education and Research,

Selaiyur, Chennai.

To

The Dean Engineering,

Bharath Institute of Higher Education and Research,

Selaiyur, Chennai.

Respected Sir,

Sub: Requisition for conducting online Value added course – reg.

School of Mechanical Sciences has planned to conduct Value added course on "Foundation to CNC Programming using GCODE" on 5/9/2020. In this regard we kindly request you to grant permission for the same.

Thanking You

HOD/MECH

Head of the Department
Department of Mechanical Engineering
Bharath Institute of Higher Education and Research
(Dec.u/s 3 of UGC Act.1956)
Selaiyur, Chennai-600 073

Dean Engineering

DEAN
BHARATH INSTITUTE OF HIGHER EDUCATION & RESEARCH
(Declared as Deemed to be University U/S 3 of UGC Act, 1956)
Chennai - 600 073, INDIA.

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Date: 15.08.2020

Department of Mechanical Engineering

Circular

The of Department of Mechanical Engineering, BIHER glad to conduct online 5 days value added program on "***Foundation to CNC Programming using GCODE***" from 05.09.2020 for 30 hours. Those who are interested to participate do register your name to the program coordinator.

All reregistered students must attend all the classes without fail. The students who are completed the course successfully with good score will get the course completion certificate from the institute/Department.

Resource person: Mr.S.Thirumavalavan and Mr.V.Srinivasan

Maximum no. of registration Allowed – 60.

***First come first serve basis.**

Program coordinator

Mr.R.Hariharan

Mr.S.Manavalan

Department of Mechanical Engineering
BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Department of Mechanical Engineering

Foundation to CNC Programming using GCODE

OBJECTIVE:

- ✓ i. Identify different axes, machine zero, home position, systems and controls CNC machines.
- ✓ ii. Select, mount and set cutting tools and tool holders on CNC.
- ✓ iii. Prepare part programmers' using ISO format for given simple components with and without use of MACRO, CANNED CYCLE and SUBROUTINE using ISO format.
- ✓ iv. Interface software application for auto part programming. v. Apply maintenance practices for CNC machines.

[DAY: 1]

MODULE 1 Industrial Safety &Practices **(5Hrs)**

Industrial Safety Practices: Introduction – Safe guarding methods – Safety in Workshop - Common methods of protection in workshop.

Engineering Drawing: Engineering drawing – Limits, fits and Tolerance (Dimensional and Geometrical tolerance), Surface finish representation. Symbolic representation of Wheels, Gears etc Basics on Orthographic views from isometric views of machine parts / components. Dimensionings, Sectioning.

Shop Theory: Work holding devices, setting & dialling of work piece, tool holding devices, application of coolant.

[DAY: 2]

MODULE II Metrology & Inspection **(5 Hrs)**

Marking tools: Introduction to marking tools, Divider, Scriber, Surface Gauge, V-Block, Parallel Block, Surface Plate, Angle Plate & Punches Measuring Tools: Introduction to measuring instruments, construction, application of steel rule, try square, vernier calliper, vernier height gauge, micrometre, bore gauge, radius gauge, bevel protractor, callipers & gauges. Conventional Lathe Machine: Lathe: Specification - Types - Mechanisms - Operations - Calculations - Capstan and turret lathe – Tooling with examples - Copy turning lathe

[DAY: 3]

MODULE III Basics Of N.C Machine Tools **(15Hrs)**

Conventional Numerical Control: Basic components of NC system, the NC procedure, NC coordinate systems, NC motion control system, applications of numerical control, advantages and disadvantages of NC, computer controls in NC, problems with conventional NC, NC controller technology, computer numerical control, functions of CNC, advantages of CNC. Tooling: Cutting Tool materials and its applications, carbide index able inserts, tooling systems for CNC Lathe, selection of tools for various work piece materials, selection of cutting parameters.

[DAY: 4] G-Code at a Glance

Manufacturers all around the world use CNC programming to control a machine's tools to produce parts. At the heart of this automated manufacturing process is a set of instructions that tells a CNC machine where – and how – to move. These instructions are called G-Code. Individual pieces of code, that make up this machine-based language start with the letter G.

[DAY: 5] G-Code Blocks

The G-code standard was published back in the days when machines had small amounts of memory. Because of this memory limitation, G-code is an extremely compact and concise language that might almost seem archaic at first glance. Take, for example, this line of code:

G01 X1 Y1 F20 T01 M03 S500

In this single line, we're giving the machine a series of instructions:

- G01 – Perform a linear feed move
- X1/Y1 – Move to these X and Y coordinates
- F20 – Move at a feed rate of 20
- T01 – Use Tool 1 to get the job done
- M03 – Turn the spindle on
- S500 – Set a spindle speed of 500

[DAY: 6]

MODULE IV G-Code Programs **(5Hrs)**

The goal of every G-code program is to produce parts in the safest and most efficient way possible. To achieve this, you'll typically find G-code blocks arranged in a particular order like this:

1. Start the CNC program.
2. Load the required tool.
3. Turn the spindle on.
4. Turn the coolant on.
5. Move to a position above a part.
6. Start the machining process.

7. Turn the coolant off.
8. Turn the spindle off.
9. Move away from the part to a safe location.
10. End the CNC program.

- **Modals and Address Codes**
- **G-Codes & M-Codes Explained**

[DAY: 7]
Practical Session for **CNC Programming using GCODE**

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Department of Mechanical Engineering

One Week online Value added Program on "*Foundation to CNC Programming using GCODE*"

5th Sep to 12th Sep 2020

Date	Morning Session (9 AM – 12 PM)	Afternoon Session (1:30 PM – 3:30 PM)
05 – 09 – 2020	**Program Inauguration** **Mr.S.Thirumavalavan** ***Industrial Safety Practices:*** *Introduction – Safe guarding methods – Safety in Workshop - Common methods of protection in workshop.*	**Mr.V.Srinivasan** ***Engineering Drawing& Shop Theory:*** *Engineering drawing – Limits, fits and Tolerance (Dimensional and Geometrical tolerance), Surface finish representation. Symbolic representation of Wheels, Gears etc Basics on Orthographic views*
06 – 09 – 2020	**Mr.V.Srinivasan** ***Marking tools:*** *Introduction to marking tools, Divider, Scriber, Surface Gauge, V-Block, Parallel Block, Surface Plate, Angle Plate & Punches Measuring Tools:*	**Mr.S.Thirumavalavan** ***Lathe Machine:*** *Lathe: Specification - Types - Mechanisms - Operations - Calculations - Capstan and turret lathe – Tooling with examples - Copy turning lathe*
07 – 09 – 2020	**Mr.S.Thirumavalavan** ***Conventional Numerical Control:*** *Basic components of NC system, the NC procedure, NC coordinate systems, NC motion control system, applications of numerical control, advantages and disadvantages of NC, computer controls in NC.*	**Mr.V.Srinivasan** ***Tooling:*** *Cutting Tool materials and its applications, carbide index able inserts, tooling systems for CNC Lathe, selection of tools for various work piece materials, selection of cutting parameters.*
08 – 09 – 2020	**Mr.V.Srinivasan** *Manufacturers all around the world use CNC programming to control a machine's tools to produce parts. At the heart of this automated manufacturing process is a set of instructions that tells a CNC machine where – and how – to move.*	**Mr.S.Thirumavalavan** ***G-Code at a Glance*** *Individual pieces of code, that make up this machine-based language start with the letter G.* ***Video Session***
09 – 11 – 2020	**Mr.S.Thirumavalavan** *The G-code standard was published back in the days when machines had small amounts of memory. Because of this memory limitation, G-code is an extremely compact and concise language that might almost seem archaic at first glance. Take, for example, this line of code:* *G01 X1 Y1 F20 T01 M03 S500*	**Mr.V.Srinivasan** ➢ ***Machine a series of instructions***
10 – 09 – 2020	**Mr.V.Srinivasan** ***G-Code Programs:*** *The goal of every G-code program is to produce parts in the safest and most efficient way possible. To achieve this, you'll typically find G-code blocks arranged in a particular order*	**Mr.S.Thirumavalavan** ➢ ***Programming session***
12 – 09 – 2020	**Mr.S.Thirumavalavan** ➢ ***Practical Session for CNC Programming using GCODE***	***Quiz/ Feedback / valedictory Session***

Program Coordinator:

Mr.R.Hariharan

Mr.S.Manavalan

Assistant Professor,

E-Mail: hariharan.mech@bharathuniv.ac.in

manavalan.mech@bharathuniv.ac.in

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

05-09-2020

Foundation to CNC Programming using GCODE

Attendance sheet

S.No	Reg.No	Name	Department
1.	U13ME002	ABHIJIT PAUL	Mechanical Engineering
2.	U13ME003	ABHISHEK KUMAR	Mechanical Engineering
3.	U13ME004	ABHISHEK KUMAR	Mechanical Engineering
4.	U13ME068	DHIRAJ DEB	Mechanical Engineering
5.	U13ME069	DILIP SINGH	Mechanical Engineering
6.	U13ME188	SATHISHKUMAR S	Mechanical Engineering
7.	U13ME189	SATHYA S	Mechanical Engineering
8.	U13ME190	SATYAJIT KUMAR	Mechanical Engineering
9.	U13ME191	SAURABH SINGH	Mechanical Engineering
10.	U13ME192	SEKAR P	Mechanical Engineering
11.	U13ME508	GRICXWIN S EDWIN	Mechanical Engineering
12.	U13ME509	VIGNESHWAREN.G	Mechanical Engineering
13.	U14ME316	SHAIK.YASEEN	Mechanical Engineering
14.	U14ME317	SHAJK FAYAZ	Mechanical Engineering
15.	U14ME319	SHASHIKANT KUMAR	Mechanical Engineering
16.	U14ME320	SHAURYA PRASAD	Mechanical Engineering

17.	U14ME321	SHAYAN DUYPURKAYASTHA	Mechanical Engineering
18.	U14ME286	RISHY KESH.D	Mechanical Engineering
19.	U14ME287	ROHIT SHARMA	Mechanical Engineering
20.	U14ME288	ROHITH KUMAR.A	Mechanical Engineering
21.	U14ME289	ROUSHAN BHARTI	Mechanical Engineering
22.	U14ME290	SACHIN KUMAR	Mechanical Engineering
23.	U14ME291	SAI KIRN CH	Mechanical Engineering
24.	U14ME292	SAI RAM PRASAD.B	Mechanical Engineering
25.	U14ME293	SAI SREEKAR.M	Mechanical Engineering
26.	U15ME057	ESAKKI P	Mechanical Engineering
27.	U15ME058	ESWAR K	Mechanical Engineering
28.	U15ME059	FEHATH BASHA S	Mechanical Engineering
29.	U15ME060	GAMBALI SANTHAN	Mechanical Engineering
30.	U15ME061	GANESH KUMAR E	Mechanical Engineering
31.	U15ME011	AKIRI VENKATESH	Mechanical Engineering
32.	U15ME012	AKTHAR A	Mechanical Engineering
33.	U15ME013	AKULA ANJI BABU	Mechanical Engineering
34.	U15ME014	ALLAPURAM AKHIL BALANARAYANA REDDY	Mechanical Engineering
35.	U15ME015	ALTAF HUSAIN	Mechanical Engineering
36.	U15MT001	AJITH	Mechatronics
37.	U15MT002	BALAJI	Mechatronics
38.	U15MT003	INAYAT ULLA RABBANI	Mechatronics

39.	U15MT004	INAYATHULLA	Mechatronics
40.	U15MT005	KARTHIGAYAN	Mechatronics
41.	U15AM012	MANIKANDAN	Automobile Engineering
42.	U15AM013	MARIA SUBITCHAM VINITH	Automobile Engineering
43.	U15AM014	MATHAN KUMAR	Automobile Engineering
44.	U15AM015	MOHAMED ASHIF	Automobile Engineering
45.	U15AM017	MUTUM NAOBA SINGH	Automobile Engineering
46.	U15AM018	NELLUBALLI CHAITANYA	Automobile Engineering
47.	U15AM019	PERIMIREDDY NAVEEN KUMAR	Automobile Engineering
48.	U15AM020	PIHE	Automobile Engineering
49.	U15AM021	PREM	Automobile Engineering
50.	U15AM022	RAJU	Automobile Engineering
51.	U15AM705	SHANMUKA KIRAN	Automobile Engineering
52.	U15AM706	REMILAN	Automobile Engineering

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

FEEDBACK FORM

❖ As part of a continuing improvement process, our college appreciates suggestions and inputs regarding the institution. We request you to sincerely answer these questions under assurance of complete confidentiality. Your interest in making our institution better is greatly appreciated.

Name of Department : Mechanical Engineering

Date : 05.09.2020

Event / Speaker Name : foundation to cnc using G'Code

- Please rate the session on the scale indicated. Your comments are most appreciated.

S.NO	Parameters	Below Average	Average	Good	Excellent	Outstanding
1.	**The Topic**					
	The choice of topic was relevant to me					✓
2.	**The Lecturer / Speaker**					
	Self-confidence				✓	
	Communication skills				✓	
	Doubts/ queries were answered satisfactorily				✓	
3.	**The Content (Topic)**					
	Refers to latest developments in the field				✓	
	Career oriented					✓
	Innovative learning, if any					✓

- Overall, how would you rate this Guest Lecture / Workshop / Seminar / Event/Value added course?

1. Below Average	2. Average	3. Good	4. Excellent	5. Outstanding
				✓

- Comments (If any): Excellent

Department of Mechanical Engineering
BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

FEEDBACK FORM

❖ As part of a continuing improvement process, our college appreciates suggestions and inputs regarding the institution. We request you to sincerely answer these questions under assurance of complete confidentiality. Your interest in making our institution better is greatly appreciated.

Name of Department : Mechanical Engineering.

Date : 05.09.2020.

Event / Speaker Name : Foundation to C++ Programming using C++ Code.

- Please rate the session on the scale indicated. Your comments are most appreciated.

S.NO	Parameters	Below Average	Average	Good	Excellent	Outstanding
1.	**The Topic**					
	The choice of topic was relevant to me					✓
2.	**The Lecturer / Speaker**					
	Self-confidence					✓
	Communication skills					✓
	Doubts/ queries were answered satisfactorily					✓
3.	**The Content (Topic)**					
	Refers to latest developments in the field					✓
	Career oriented					✓
	Innovative learning, if any					✓

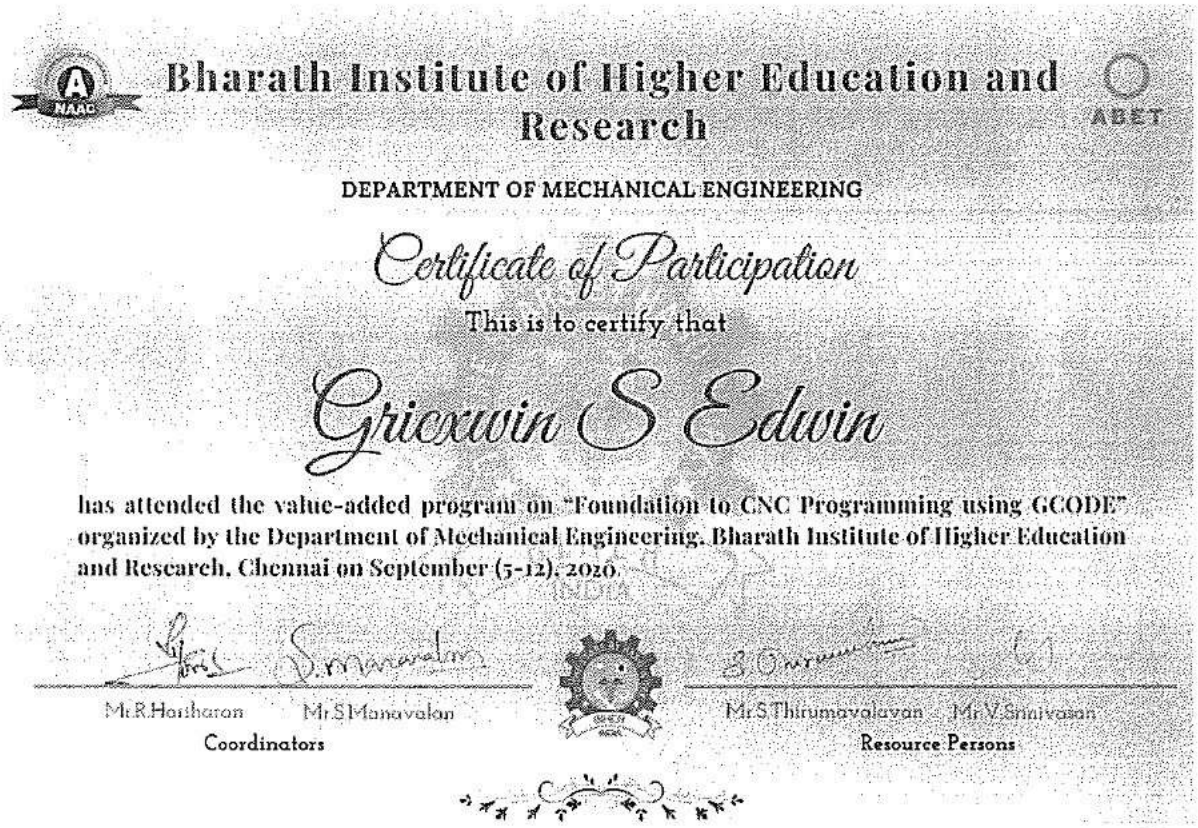
- Overall, how would you rate this Guest Lecture / Workshop / Seminar / Event/Value added course?

1. Below Average	2. Average	3. Good	4. Excellent	5. Outstanding
				✓

- Comments (If any): Very Excellent Presentation.

Department of Mechanical Engineering
BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH
Chennai-600 073

Certificate



Bharath Institute of Higher Education and Research

ABET

DEPARTMENT OF MECHANICAL ENGINEERING

Certificate of Participation

This is to certify that

Griexwin S Edwin

has attended the value-added program on "Foundation to CNC Programming using GCODE" organized by the Department of Mechanical Engineering, Bharath Institute of Higher Education and Research, Chennai on September (5-12), 2020.

Mr.R.Hariharan Mr.S.Manavalan
Coordinators

Mr.S.Thirumavalavan Mr.V.Srinivasan
Resource Persons

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

NAAC

Requisition Letter

2.02.2021

FROM

THE HOD

Department of Mechatronics

Bharath Institute of Higher Education and Research

Selaiyur-Chennai- 73

TO

THE DEAN ENGINEERING

Bharath Institute of Higher Education and Research

Selaiyur-Chennai- 73

Sir,

Subject: Requisition for conducting online Value Added course reg.

The school of Mechanical sciences had planned to conduct a 5 -day value added course on the topic **"ANDROID COMPONENTS & BUILDING BLOCKS"** dated from 7.02.2021 to 11.02.2021. In this regard, I request you to kindly grant permission for conducting the same.

Thanking You

HOD

(Dr. Sengottuvel)

Dept. of Mechatronics

Dean Engineering

(Dr.J.Hameed Hussain)

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Date: 2.02.2021

Department of Mechatronics

Circular

The Department of Mechatronics, BIHER is glad to conduct a online Value Added Program on **"ANDROID COMPONENTS & BUILDING BLOCKS"** dated from 7.02.2021 for a period of 25 hours. Those who are interested to participate do register your name with the program coordinator mentioned below.

Resource persons:

Dr.P.Sengottuvel,
Professor,
BIHER

Mr. SIVARAMAKRISHNAN
Department of Production,
MIT,Chennai

Maximum No. of registration Allowed – 56

***First come first serve basis.**

Program Coordinator:
Mr.MUTHUKUMARAN
Assistant Professor
Mrs.V.G.VIJAYA
Assistant Professor,
E-Mail: vijayasaravanan84@gmail.com
Mobile: 8870136732

HOD

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Department of Mechatronics

ANDROID COMPONENTS & BUILDING BLOCKS

OBJECTIVES:

This course will show An android **component** is simply a piece of code that has a well defined life cycle e.g. Activity, Receiver, Service etc.

The core building blocks or fundamental components of android are activities, views, intents, services, content providers, fragments and AndroidManifest.xml.

.

[DAY: 1]

- **MODULE I Start the service (5 Hrs)**
- Service is a background process that can run for a long time.
- There are two types of services local and remote. Local service is accessed from within the application whereas remote service is accessed remotely from other applications running on the same device.

.

[DAY: 2]

- **MODULE II Launch an activity (5 Hrs)**

Content Providers are used to share data between the applications.

[DAY: 3]

- **MODULE III Display a web page (5 Hrs)**
- Fragments are like parts of activity. An activity can display one or more fragments on the screen at the same time.

- [DAY: 4]

- **MODULE IV Display a list of contacts (5 Hrs)**
- It contains informations about activities, content providers, permissions etc. It is like the web.xml file in Java EE.

[DAY: 5]

- **MODULE V : Broadcast a message (5 Hrs)**

It is used to test the android application without the need for mobile or tablet etc. It can be created in different configurations to emulate different types of real devices.

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Department of Mechatronics

Value Added Course - ANDROID COMPONENTS & BUILDING BLOCKS

PARTICIPANTS LIST

S.No	Reg.No	Name	Department
1.	U16AM010	JAI KUMAR VERMA	Automobile Engineering
2.	U16AM012	MOHAMED IMTHIYAZ M	Automobile Engineering
3.	U16AM015	PARIMI SAI SURYA VAMSI .	Automobile Engineering
4.	U16AM017	AMAL PHILIP GEORGE .	Automobile Engineering
5.	U16AM018	ROSHAN ROMARIO FRANCIS	Automobile Engineering
6.	U16AM019	ANTHAM JEEVAN REDDY .	Automobile Engineering
7.	U16AM001	RAMACHANDRAN M	Automobile Engineering
8.	U16AM002	LIBIN BOBBY	Automobile Engineering
9.	U16AM004	NANDA KUMAR K	Automobile Engineering
10.	U16AM005	VASANTHKUMAR R	Automobile Engineering
11.	U16ME012	MOHANRAJ R	Automobile Engineering
12.	U16ME014	RAVIRAJAN S	Mechanical Engineering
13.	U16ME023	ARAVINDAN K	Mechanical Engineering

14.	U16ME029	DINESH KUMAR M	Mechanical Engineering
15.	U16ME031	ZHAKIRHUSSAIN S	Mechanical Engineering
16.	U16ME101	VIJAY M	Mechanical Engineering
17.	U16ME104	MULLAGURA BHARATH KUMAR .	Mechanical Engineering
18.	U16ME105	CHALLA CHARANKUMAR .	Mechanical Engineering
19.	U16ME106	RAJEEV KUMAR .	Mechanical Engineering
20.	U16ME107	MANOJ .	Mechanical Engineering
21.	U16MT001	PRADEEPAN S	Mechanical Engineering
22.	U16MT002	RAAHUL GANESH R	Mechanical Engineering
23.	U16MT003	DINESH J	Mechatronics
24.	U16MT004	SRINATH B	Mechatronics
25.	U16MT005	DHANASEKAR R	Mechatronics
26.	U16MT006	GOUTHAM M	Mechatronics
27.	U16MT007	SATHIYASEELAN S	Mechatronics
28.	U16MT008	RAKESH P	Mechatronics
29.	U16MT009	ABDUL FAHEEM S	Mechatronics
30.	U16MT010	SAKTHI R	Mechatronics
31.	U16MT011	MELVINE ROHAN R	Mechatronics
32.	U16MT014	SARATHKUMAR D	Mechatronics
33.	U16MT015	SOMENDRAN A	Mechatronics
34.	U16MT018	RATHISH KRISHNAN R	Mechatronics
35.	U16ME119	PALAPALA KOTESWARARAO	Mechanical Engineering

36.	U16ME120	MADDIKARA SRIKAMTHREDDY	Mechanical Engineering
37.	U16ME121	MUKESH K	Mechanical Engineering
38.	U16ME129	DEEPAK RAJAN D	Mechanical Engineering
39.	U16ME131	VIJAY M	Mechanical Engineering
40.	U16ME133	AKASH SAHA	Mechanical Engineering
41.	U16ME134	ARANYA JASH	Mechanical Engineering
42.	U16ME140	MO WASEEM .	Mechanical Engineering
43.	U16ME504	MASAPALLI GURUTEJA	Mechanical Engineering
44.	U16ME505	KONDURU VENKATESWARA PRASAD	Mechanical Engineering
45.	U16ME506	ARUN GOSH P A	Mechanical Engineering
46.	U16ME510	Selva Kumar M	Mechanical Engineering
47.	U16ME513	CHINTALA RAMESH DORAUV	Mechanical Engineering
48.	U16ME516	KARTHIKEYAN K	Mechanical Engineering
49.	U16ME520	PAVITHRAN OMEZHILAN	Mechanical Engineering
50.	U16ME522	I S V SAI DATTHA SHARAN	Mechanical Engineering
51.	U16ME572	RANJITH VIGNESHWAR A	Mechanical Engineering
52.	U16ME602	SHAIK MAHAMMED HANEEF	Mechanical Engineering
53.	U16ME603	SHAIK RIYAZ	Mechanical Engineering
54.	U16AM703	LAGHYVARAPU SAI SATISH .	Automobile Engineering
55.	U16AM704	GUNTAMUKKALA THILAK	Automobile Engineering
56.	U16AM705	KUTO CHUZHO	Automobile Engineering

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

BHARATH INSTITUTE OF SCIENCE & TECHNOLOGY

Selaiyur, Chennai – 73.

DEPARTMENT OF MECHATRONICS

VALVE ADDED COURSE
FEEDBACK FORM

Date: 7/2/2021

NAME	LIBIN BOBBY				
REGISTER.NO	U16AM002				
COURSE TITLE	ANDROID Components & Building blocks.				
	POOR	FAIR	GOOD	VERY GOOD	EXCELLENT
OVERALL PROGRAM			✓		
THE SPEAKER			✓		
AUDIO,VISIAL AIDS,TECHNOLOGY USED			✓	✓	
PRESENTATION HAND OUTS			✓		

Bobby

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

BHARATH INSTITUTE OF SCIENCE & TECHNOLOGY

Selaiyur, Chennai – 73.

DEPARTMENT OF MECHATRONICS

VALVE ADDED COURSE
FEEDBACK FORM

Date: 7/2/2021

NAME	Srinath				
REGISTER.NO	U16MT004.				
COURSE TITLE	Android Components & Building Blocks.				
	POOR	FAIR	GOOD	VERY GOOD	EXCELLENT
OVERALL PROGRAM					✓
THE SPEAKER					✓
AUDIO,VISIAL AIDS,TECHNOLOGY USED				✓	
PRESENTATION HAND OUTS					✓

BHARATH INSTITUTE OF SCIENCE AND TECHNOLOGY
DEPARTMENT OF MECHATRONICS

CERTIFICATE OF PARTICIPATION

This is to certify that

RAMACHANDRAN .M

of **Bharath Institute of Science and Technology**

had attended the 5 day Value Added Program on ANDROID COMPONENTS & BUILDING BLOCKS

organized by the Department of Mechatronics-

Bharath Institute of Higher Education and Research,Chennai on *7/2/2021 TO 11/2/2021*

Mr.Muthukumaran/Mrs.V.G.Vijaya

Coordinators

Dr.P.Sengottuvel
Resource Person

Requisition Letter 5.2.2021

FROM

THE HOD

Department of Mechatronics

Bharath Institute of Higher Education and Research

Selaiyur-Chennai- 73

TO

THE DEAN ENGINEERING

Bharath Institute of Higher Education and Research

Selaiyur-Chennai- 73

Sir,

Subject: Requisition for conducting online Value Added course reg.

The school of Mechanical sciences had planned to conduct a 5 day value added course on the topic Course on **"CERTIFICATE COURSE ON HUMANOID ROBOTICS"** dated from **7.2.2021 to 11.2.2021** . In this regard, I request you to kindly grant permission for conducting the same.

Thanking You

HOD

(Dr. Sengottuvel)

Dept. of Mechatronics

Dean Engineering

(Dr.J.Hameed Hussain)

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Date: 5.2.2021

Department of Mechatronics

Circular

The Department of Mechatronics, BIHER is glad to conduct a 5 - day Value Added Program on **"CERTIFICATE COURSE ON HUMANOID ROBOTICS"** dated from 7.2.2021 for a period of 25 hours. Those who are interested to participate do register your name with the program coordinator mentioned below.

Resource persons:

Dr.P.Sengottuvel,
Professor,
BIHER

Dr.D.Dinakaran,
Centre for Automation & Robotics,
Chennai.

Maximum No. of registration Allowed – 60

***First come first serve basis.**

Program Coordinator:
Mrs.V.G.VIJAYA
Assistant Professor
Mr.JAIRAJESH
Assistant Professor,
E-Mail: vijayasaravanan84@gmail.com
Mobile: 8870136732

HOD

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Department of Mechatronics

ONLINE CERTIFICATE COURSE ON HUMANOID ROBOTICS

OBJECTIVES:

This course will show The course aims at giving the students a basic understanding of the theory of humanoid robots, i.e. bipedal walking robots with an approximately humanlike shape, and practical knowledge concerning humanoid robots, through a robot construction project.

[DAY: 1]

MODULE I Developing Kinematic Model (5 Hrs)

Create a General solution of forward kinematics for serial chains

[DAY: 2]

MODULE II From Joints to TCP (5 Hrs)

Solving the forward kinematics of a 6-axes robot in 6 steps

[DAY: 3]

MODULE III Test (5 Hrs)

Test your code against this example

[DAY: 4]

MODULE IV Base Frame and Tool (5 Hrs)

Add a base frame and a tool to the forward kinematics solution

[DAY: 5]

MODULE V : Coupling (5 Hrs)

Introduce mechanical coupling between joint axes

Bharath

INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Department of Mechatronics

Value Added Course - CERTIFICATE COURSE ON HUMANOID ROBOTICS

PARTICIPANTS LIST

S.No	Reg.No	Name	Department
1.	U17MT056	SURYA PRAKASH	Mechatronics
2.	U17MT055	YOKESH RAJ	Mechatronics
3.	U17MT054	VASANTH	Mechatronics
4.	U17MT053	GOKULAKRISHNAN	Mechatronics
5.	U17MT052	SATHISH KUMAR	Mechatronics
6.	U17MT051	BOLLEDDU RAVI TEJA	Mechatronics
7.	U17MT050	THIRUMURUGAN	Mechatronics
8.	U17MT049	NIKHILANTONY	Mechatronics
9.	U17MT048	PALANIYAPPAN	Mechatronics
10.	U17MT046	VIGNESHWARAN	Mechatronics
11.	U17MT045	ABDUL RAHAMAN	Mechatronics
12.	U17MT044	BADDITI	Mechatronics
13.	U17MT042	METHIL KRISHNAN	Mechatronics
14.	U17MT040	NIZAMUDEEN	Mechatronics
15.	U17MT039	SAGADEVAN	Mechatronics

16.	U17MT038	DHARANIDHARAN	Mechatronics
17.	U17MT037	DINESH	Mechatronics
18.	U17MT036	SUSHIL KUMAR	Mechatronics
19.	U17MT035	HARIHARAN	Mechatronics
20.	U17MT061	MOHAMMED ABBAS	Mechatronics
21.	U17MT060	DINESHKUMAR	Mechatronics
22.	U17MT059	RAKKESH ARAVIND	Mechatronics
23.	U17MT058	NAGARAJ	Mechatronics
24.	U17MT057	SREE MUKESH	Mechatronics
25.	U17MT056	SURYA PRAKASH	Mechatronics
26.	U17MT055	YOKESH RAJ	Mechatronics
27.	U17MT054	VASANTH	Mechatronics
28.	U17MT053	GOKULAKRISHNAN	Mechatronics
29.	U17MT052	SATHISH KUMAR	Mechatronics
30.	U17MT051	BOLLEDDU RAVI TEJA	Mechatronics
31.	U17MT050	THIRUMURUGAN	Mechatronics
32.	U17MT049	NIKHILANTONY	Mechatronics
33.	U17MT048	PALANIYAPPAN	Mechatronics
34.	U17MT046	VIGNESHWARAN	Mechatronics
35.	U17MT045	ABDUL RAHAMAN	Mechatronics
36.	U16ME035	PARTHAN V	Mechanical Engineering
37.	U16ME041	SUVODEEP RAKSHIT	Mechanical Engineering
38.	U16ME049	MOHAMED ABDULLAH K	Mechanical Engineering
39.	U16ME055	DEEPAK H	Mechanical Engineering

40.	U16ME056	YOGESH P	Mechanical Engineering
41.	U16ME059	JEFRON G	Mechanical Engineering
42.	U16ME062	DANIEL N P	Mechanical Engineering
43.	U16ME066	VASANTH KUMAR R	Mechanical Engineering
44.	U16ME078	KAMASANI SURESH	Mechanical Engineering
45.	U16ME080	MAJID ALI	Mechanical Engineering
46.	U16ME082	HARISH S	Mechanical Engineering
47.	U16ME087	ANAND KUMAR .	Mechanical Engineering
48.	U16ME093	MACHUNURU PRASAD KUMAR REDDY	Mechanical Engineering
49.	U16ME094	GOPAL KUMAR .	Mechanical Engineering
50.	U16ME098	PRAJEESH S NAIR .	Mechanical Engineering
51.	U16MT004	SRINATH B	Mechatronics
52.	U16MT005	DHANASEKAR R	Mechatronics
53.	U16MT006	GOUTHAM M	Mechatronics
54.	U16MT007	SATHIYASEELAN S	Mechatronics
55.	U16MT008	RAKESH P	Mechatronics
56.	U16MT009	ABDUL FAHEEM S	Mechatronics
57.	U16MT010	SAKTHI R	Mechatronics
58.	U16MT011	MELVINE ROHAN R	Mechatronics
59.	U16MT014	SARATHKUMAR D	Mechatronics
60.	U16MT002	RAAHUL GANESH R	Mechatronics

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

BHARATH INSTITUTE OF SCIENCE & TECHNOLOGY

Selaiyur, Chennai – 73.

DEPARTMENT OF MECHATRONICS

VALVE ADDED COURSE
FEEDBACK FORM

Date: 7/2/2021

NAME	U17MT042				
REGISTER.NO	MITHIL Krishnan.				
COURSE TITLE	CERTIFICATE COURSE ON HUMANOID ROBOTICS				
	POOR	FAIR	GOOD	VERY GOOD	EXCELLENT
OVERALL PROGRAM					✓
THE SPEAKER				✓	
AUDIO,VISIAL AIDS,TECHNOLOGY USED			✓		
PRESENTATION HAND OUTS					✓

Krishnan

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

BHARATH INSTITUTE OF SCIENCE & TECHNOLOGY

Selaiyur, Chennai – 73.

DEPARTMENT OF MECHATRONICS

VALVE ADDED COURSE
FEEDBACK FORM

Date: 7/2/2021

NAME	U17MT045				
REGISTER.NO	Abdul Rahman.				
COURSE TITLE	Certificate course on Humanoid Robotics				
	POOR	FAIR	GOOD	VERY GOOD	EXCELLENT
OVERALL PROGRAM				✓	
THE SPEAKER			✓		
AUDIO,VISIAL AIDS,TECHNOLOGY USED				✓	
PRESENTATION HAND OUTS				✓	

Abdul 7/2

BHARATH INSTITUTE OF SCIENCE AND TECHNOLOGY
DEPARTMENT OF MECHATRONICS

CERTIFICATE OF PARTICIPATION

This is to certify that

SATHISHKUMAR

of **Bharath Institute of Science and Technology**

had attended the 5 day Value Added Program on " *CERTIFICATE COURSE ON HUMANOID ROBOTICS*

organized by the Department of Mechatronics-

Bharath Institute of Higher Education and Research, Chennai on *7/2/2021 TO 11/2/2021*

V.G.VIJAYA/J.JAIRAJESH

Coordinators

Dr.P.Sengottuvel
Resource Person

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

NAAC

Requisition Letter 30.06.2020

FROM

THE HOD

Department of Mechatronics

Bharath Institute of Higher Education and Research

Selaiyur-Chennai- 73

TO

THE DEAN ENGINEERING

Bharath Institute of Higher Education and Research

Selaiyur-Chennai- 73

Sir,

Subject: Requisition for online conducting Value Added course reg.

The school of Mechanical sciences had planned to conduct a 5 day value added course on the topic "**COURSE ON WORLD OF ROBOTICS**" dated from **3.07.2020 to 7.07.2020**. In this regard, I request you to kindly grant permission for conducting the same.

Thanking You

HOD

(Dr. Sengottovel)

Dept. of Mechatronics

Dean Engineering

(Dr.J.Hameed Hussain)

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Date: 30.6.2020

Department of Mechatronics

Circular

The Department of Mechatronics, BIHER is glad to conduct a 5 - day Value Added Program on **"COURSE ON WORLD OF ROBOTICS"** dated from 3.07.2020 for a period of 25 hours. Those who are interested to participate do register your name with the program coordinator mentioned below.

Resource persons:

Dr.P.Sengottuvel,
Professor,
BIHER

Mr. Vinod Kumar,
Associate Professor,
Hindustan college of Engineering,
Chennai.

Maximum No. of registration Allowed – 42

***First come first serve basis.**

Program Coordinator:
Mrs.V.G.VIJAYA
Assistant Professor
Mr.J.DHANASEKAR
Assistant Professor,
E-Mail: vijayasaravanan84@gmail.com
Mobile: 8870136732

HOD

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Department of Mechatronics

COURSE ON WORLD OF ROBOTICS

OBJECTIVES:

This course will show you allow you to know and specialize in this area. From theoretical bases to practice, discover thanks to the Massive Open Online Courses, the world of robotics. You can learn and understand machine design, the operation of artificial intelligence and a robot.

[DAY: 1]

MODULE I Introduction to Robotics (5 Hrs)

The purpose of this course is to introduce you to basics of modeling, design, planning, and control of robot systems. In essence, the material treated in this course is a brief survey of relevant results from geometry, kinematics, statics, dynamics, and control.

[DAY: 2]

MODULE II Robot anatomy (5 Hrs)

Access WebVI resource files, web service data, and use web services like System Link Tag and Message in your web application.

[DAY: 3]

MODULE III ROBOT simulation (5 Hrs)

To introduce the concept of dynamical composition, reviewing two types: a composition in time that we term "sequential"; and composition in space that we call "parallel." We'll put a bit more focus into that last concept, parallel composition and review what has been done historically,

[DAY: 4]

MODULE IV Robot application (5 Hrs)

Learn about your hosting options during development and how to host your web application to share with users. determine how to integrate your web application into your hardware system to share measurement data and interact with your hardware.

[DAY: 5]

MODULE V : Robot applications-ACTIVITY (5 Hrs)

We develop an approach to composing simple dynamical abstractions that partially automate the generation of complicated sensor motor programs. Specific topics that will be covered include: mobility in animals and robots, kinematics and dynamics of legged machines, and design of dynamical behavior via energy landscapes.

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Department of Mechatronics

Value Added Course - COURSE ON WORLD OF ROBOTICS

PARTICIPANTS LIST

S.No	Reg.No	Name	Department
1.	U17ME068	CHALLA GIRREESH GIREESH	Mechanical Engineering
2.	U17ME069	VEMPULURU RAKESH	Mechanical Engineering
3.	U17ME070	MARRIPATI BHARGAV	Mechanical Engineering
4.	U17ME072	CHITTIREDDY PAVAN	Mechanical Engineering
5.	U17ME075	VEDURUPARTHY KANAKA VENKATA SURESH	Mechanical Engineering
6.	U18MT021	M LAKHAN PUROHIT	Mechatronics
7.	U18MT020	DOSURI VENKATA NAGA RAMA NIRMAL	Mechatronics
8.	U18MT019	VASANTH G	Mechatronics
9.	U18MT018	YOGESH M	Mechatronics
10.	U18MT017	KURAPATI JAGADEESH	Mechatronics
11.	U18MT016	EMAYAVARMAN P K	Mechatronics
12.	U18MT015	ROHITH V S	Mechatronics
13.	U18MT014	SATHISH KUMAR B	Mechatronics
14.	U18MT013	E MAGESHWARI	Mechatronics
15.	U18MT012	BRIGHT SELVA KUMARAN A	Mechatronics

16.	U18MT010	MOHAMMED SHARJUN K	Mechatronics
17.	U18MT009	SANJAY C	Mechatronics
18.	U18MT008	VASANTHRADEVI R	Mechatronics
19.	U18MT007	JEBULTONE A	Mechatronics
20.	U18MT006	SANTHOSHKUMAR M	Mechatronics
21.	U18MT005	PRAVEENKUMAR V	Mechatronics
22.	U18MT004	JAGADEESH KUMAR P	Mechatronics
23.	U18MT003	PRAVIN KUMAR V	Mechatronics
24.	U18MT002	ARUN KUMAR S	Mechatronics
25.	U17ME059	BALAJI P	Mechanical Engineering
26.	U17ME062	PAKAM SARATH KUMAR .	Mechanical Engineering
27.	U17ME066	YETTELLA BHUVANESWARA REDDY .	Mechanical Engineering
28.	U17ME068	CHALLA GIRREESH GIREESH	Mechanical Engineering
29.	U17ME069	VEMPULURU RAKESH	Mechanical Engineering
30.	U17ME075	VEDURUPARTHY KANAKA VENKATA SURESH .	Mechanical Engineering
31.	U17ME083	MOPURI RAMESH REDDY .	Mechanical Engineering
32.	U17ME089	KALLOL CHAKRABORTY	Mechanical Engineering
33.	U17ME090	LOKIREDDY VENKATA SHIVA KUMAR REDDY	Mechanical Engineering
34.	U17ME093	ANIPEDDI DEEKSHITH	Mechanical Engineering
35.	U17ME096	SOMASEKHAR KAVATI SOMASEKHAR	Mechanical Engineering
36.	U17ME099	DANGETI SATISH	Mechanical Engineering

37.	U17ME100	MARTHALA KARTHIK KUMAR REDDY .	Mechanical Engineering
38.	U17ME101	KATTA GOPI KRISHNA .	Mechanical Engineering
39.	U17ME021	DARAM PRITHVI RAJ .	Mechanical Engineering
40.	U17ME035	DAMARLA SAI SANTHOSH .	Mechanical Engineering
41.	U17ME036	FEROZ AKHTAR M A	Mechanical Engineering
42.	U17ME038	HARIRAM K	Mechanical Engineering

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

BHARATH INSTITUTE OF SCIENCE & TECHNOLOGY

Selaiyur, Chennai – 73.

DEPARTMENT OF MECHATRONICS

VALVE ADDED COURSE

FEEDBACK FORM

Date: 7/7/2020

NAME	U18MT003				
REGISTER.NO	PRAVIN KUMAR.				
COURSE TITLE	WORLD OF ROBOTICS.				
	POOR	FAIR	GOOD	VERY GOOD	EXCELLENT
OVERALL PROGRAM					✓
THE SPEAKER				✓	✓
AUDIO,VISIAL AIDS,TECHNOLOGY USED					✓
PRESENTATION HAND OUTS					✓

STUDENT SIGNATURE

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

BHARATH INSTITUTE OF SCIENCE & TECHNOLOGY

Selaiyur, Chennai – 73.

DEPARTMENT OF MECHATRONICS

VALVE ADDED COURSE
FEEDBACK FORM

Date: 7/7/2020

NAME	BALAJI. P				
REGISTER.NO	U17ME059				
COURSE TITLE	WORLD OF ROBOTICS				
	POOR	FAIR	GOOD	VERY GOOD	EXCELLENT
OVERALL PROGRAM		✓			
THE SPEAKER			✓		
AUDIO,VISIAL AIDS,TECHNOLOGY USED				✓	
PRESENTATION HAND OUTS				✓	

Balaji 7/7

BHARATH INSTITUTE OF SCIENCE AND TECHNOLOGY
DEPARTMENT OF MECHATRONICS

CERTIFICATE OF PARTICIPATION

This is to certify that

CHITTIREDDY BHAVAN

of **Bharath Institute of Science and Technology**

had attended the 5 day Value Added Program on

COURSE ON WORLD OF ROBOTICS

organized by the Department of Mechatronics-

Bharath Institute of Higher Education and Research,Chennai on ***3/7/2020 TO 7/7/2020***

V.G. Vijaya J. Dhanasekar

V.G.VIJAYA/J.DHANASEKAR

Coordinators

Dr.P.Sengottuvel

Resource Person

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

NAAC

Requisition Letter 02.11.2020

FROM

THE HOD

Department of Mechatronics

Bharath Institute of Higher Education and Research

Selaiyur-Chennai- 73

TO

THE DEAN ENGINEERING

Bharath Institute of Higher Education and Research

Selaiyur-Chennai- 73

Sir,

Subject: Requisition for online conducting Value Added course reg.

The school of Mechanical sciences had planned to conduct a 5 day value added course on the topic **"COURSE ON SIXTH SENSE ROBOTICS FOR ENGINEERING"** dated from **4.11.2020 to 8.11.2020.** In this regard, I request you to kindly grant permission for conducting the same.

Thanking You

HOD

(Dr. Sengottuvel)

Dept. of Mechatronics

Dean Engineering

(Dr.J.Hameed Hussain)

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Department of Mechatronics

Circular

Date: 2.11.2020

The Department of Mechatronics, BIHER is glad to conduct a 5 - day Value Added Program on **"COURSE ON SIXTH SENSE ROBOTICS FOR ENGINEERING"** dated from 4.11.2020 for a period of 25 hours. Those who are interested to participate do register your name with the program coordinator mentioned below.

Resource persons:

Dr.P.Sengottuvel,
Professor,
BIHER

Mr. Chandrasekar.R,
Prag Robotics,
Chennai.

Maximum No. of registration Allowed – 38

***First come first serve basis.**

Program Coordinator:
Mrs.VASUMATHI
Assistant Professor
Mr.J.DHANASEKAR
Assistant Professor,
E-Mail: dhanasekar81@gmail.com
Mobile: 9841259514

HOD

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Department of Mechatronics

COURSE ON SIXTH SENSE ROBOTICS FOR ENGINEERING

OBJECTIVES:

This course introduces you to the amazing world of sixth sense technology and its fascinating applications. Using an Arduino board and other electronic components, you will develop a robot that can be controlled through digital information. The digital information is processed using the image processing technique which takes the input data from the user who can give commands using hand gestures.

[DAY: 1]

- **MODULE I Introduction to Sixth sense Technology (5 Hrs)**

Sixth Sense' is a wearable gesture interface that augments the physical world around us with digital information and lets us use natural hand gestures to interact with that information. This technology will definitely give the user a new way of seeing the world with information at their fingertips it has been classified under the category 'wearable computing'.

[DAY: 2]

- **MODULE II Introduction to Image Processing and application (5 Hrs)**

Image processing is a method to perform some operations on an image, in order to get an enhanced image or to extract some useful information from it. It is a type of signal processing in which input is an image and output may be image or characteristics/features associated with that image.

[DAY: 3]

- **MODULE III Open CV and Python programming (5 Hrs)**

OpenCV is a huge open-source library for computer vision, machine learning, and image processing. OpenCV supports a wide variety of programming languages like Python, C++, Java, etc.

[DAY: 4]

- **MODULE IV** Edge detection and image enhancement **(5 Hrs)**

Edge detection includes a variety of mathematical methods that aim at identifying points in a digital image at which the image brightness changes sharply or, more formally, has discontinuities. The points at which image brightness changes sharply are typically organized into a set of curved line segments termed edges

[DAY: 5]

- **MODULE V :** Programming the Robot using Python Open CV and Arduino **(5 Hrs)**

You can use OpenCV, Python, and Arduino to detect and track faces. Face tracking can be used in a variety of robotics projects and applications.

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Department of Mechatronics

Value Added Course - ONLINECOURSE ON SIXTH SENSE ROBOTICS FOR ENGINEERING

PARTICIPANTS LIST

S.No	Reg.No	Name	Department
1.	U16AM015	PARIMI SAI SURYA VAMSI .	Automobile Engineering
2.	U16AM017	AMAL PHILIP GEORGE .	Automobile Engineering
3.	U16AM018	ROSHAN ROMARIO FRANCIS	Automobile Engineering
4.	U16AM019	ANTHAM JEEVAN REDDY .	Automobile Engineering
5.	U16AM001	RAMACHANDRAN M	Automobile Engineering
6.	U16AM002	LIBIN BOBBY	Automobile Engineering
7.	U16AM004	NANDA KUMAR K	Automobile Engineering
8.	U16AM005	VASANTHKUMAR R	Automobile Engineering
9.	U16ME012	MOHANRAJ R	Automobile Engineering
10.	U16ME014	RAVIRAJAN S	Mechanical Engineering
11.	U16ME023	ARAVINDAN K	Mechanical Engineering
12.	U16ME029	DINESH KUMAR M	Mechanical Engineering
13.	U16ME031	ZHAKIRHUSSAIN S	Mechanical Engineering
14.	U16ME101	VIJAY M	Mechanical Engineering
15.	U16ME104	MULLAGURA BHARATH KUMAR .	Mechanical Engineering
16.	U16ME105	CHALLA CHARANKUMAR .	Mechanical Engineering

17.	U16ME106	RAJEEV KUMAR .	Mechanical Engineering
18.	U16ME107	MANOJ .	Mechanical Engineering
19.	U16MT001	PRADEEPAN S	Mechanical Engineering
20.	U16MT002	RAAHUL GANESH R	Mechanical Engineering
21.	U16MT003	DINESH J	Mechatronics
22.	U16MT004	SRINATH B	Mechatronics
23.	U16MT005	DHANASEKAR R	Mechatronics
24.	U16MT006	GOUTHAM M	Mechatronics
25.	U16MT007	SATHIYASEELAN S	Mechatronics
26.	U16MT008	RAKESH P	Mechatronics
27.	U16MT009	ABDUL FAHEEM S	Mechatronics
28.	U16MT010	SAKTHI R	Mechatronics
29.	U16MT011	MELVINE ROHAN R	Mechatronics
30.	U16MT014	SARATHKUMAR D	Mechatronics
31.	U16MT015	SOMENDRAN A	Mechatronics
32.	U16MT018	RATHISH KRISHNAN R	Mechatronics
33.	U16MT501	MUGILAN M	Mechatronics
34.	U16MT502	VIGNESHWAR C B	Mechatronics
35.	U16MT503	KARUPHIN KAWIN J	Mechatronics
36.	U16MT701	CHANDRASEKAR D G	Mechatronics
37.	U16MT702	CHIRANJEEVI G	Mechatronics
38.	U16MT703	VIGNESH A	Mechatronics

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

BHARATH INSTITUTE OF SCIENCE & TECHNOLOGY

Selaiyur, Chennai – 73.

DEPARTMENT OF MECHATRONICS

VALVE ADDED COURSE
FEEDBACK FORM

Date: 8/11/20

NAME	CHIRANJEEVI.U				
REGISTER.NO	U16MT702				
COURSE TITLE	SIXTH SENSE ROBOTICS FOR ENGGS				
	POOR	FAIR	GOOD	VERY GOOD	EXCELLENT
OVERALL PROGRAM		✓			
THE SPEAKER			✓		
AUDIO,VISIAL AIDS,TECHNOLOGY USED					✓
PRESENTATION HAND OUTS				✓	

Chiranjeevi 8/11

BHARATH INSTITUTE OF SCIENCE AND TECHNOLOGY
DEPARTMENT OF MECHATRONICS

CERTIFICATE OF PARTICIPATION

This is to certify that

MOHANRAJ

of **Bharath Institute of Science and Technology**

had attended the 5 day Value Added Program on ***COURSE ON SIXTH SENSE ROBOTICS FOR ENGINEERING***

organized by the Department of Mechatronics-

Bharath Institute of Higher Education and Research,Chennai on *4/11/2020 TO 8/11/2020*

G.VASUMATHI/J.DHANASEKAR
Coordinators

Dr.P.Sengottuvel
Resource Person

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

NAAC

Requisition Letter 1.09.2020

FROM

THE HOD

Department of Mechatronics

Bharath Institute of Higher Education and Research

Selaiyur-Chennai- 73

TO

THE DEAN ENGINEERING

Bharath Institute of Higher Education and Research

Selaiyur-Chennai- 73

Sir,

Subject: Requisition for conducting Value Added course reg.

The school of Mechanical sciences had planned to conduct a 5 day value added course on the topic "**CERTIFICATION COURSE ON ROBO DUINO- GRAVITY**"dated from **5.9.2020 to 9.9.2020**. In this regard, I request you to kindly grant permission for conducting the same.

Thanking You

HOD

(Dr. Sengottuvel)

Dept. of Mechatronics

Dean Engineering

(Dr.J.Hameed Hussain)

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Date: 1.9.2020

Department of Mechatronics

Circular

The Department of Mechatronics, BIHER is glad to conduct a 5 - day Value Added Program on **"CERTIFICATION COURSE ON ROBO DUINO- GRAVITY"** dated from 5.9.2020 for a period of 25 hours. Those who are interested to participate do register your name with the program coordinator mentioned below.

Resource persons:

Dr.P.Sengottuvel,
Professor,
BIHER

Mr. Chandrasekar.R,
Prag Robotics,
Chennai.

Maximum No. of registration Allowed – 33

***First come first serve basis.**

Program Coordinator:
Mrs.V.G.VIJAYA
Assistant Professor
Mr.MUTHUKUMARAN
Assistant Professor,
E-Mail: vijayasaravanan84@gmail.com
Mobile: 8870136732

HOD

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Department of Mechatronics

CERTIFICATION COURSE ON ROBO DUINO- GRAVITY

OBJECTIVES:

This course will show you how RoboMind Academy trains Computational Thinking: an essential 21st century skill.By programming a virtual robot, the student is introduced to logic, automation and technology.Logical thinking is directly connected to solving real world challenges.

[DAY: 1]

MODULE I Introduction To Robotics (5 Hrs)

he Introduction to Robotics Specialization introduces you to the concepts of robot flight and movement,.

[DAY: 2]

MODULE II Robot anatomy (5 Hrs)

Access WebVI resource files, web service data, and use web services like System Link Tag and Message in your web application.

[DAY: 3]

MODULE III ROBOT simulation (5 Hrs)

To introduce the concept of dynamical composition, reviewing two types: a composition in time that we term "sequential"; and composition in space that we call "parallel." We'll put a bit more focus into that last concept, parallel composition and review what has been done historically,

[DAY: 4]

MODULE IV Robot application (5 Hrs)

Learn about your hosting options during development and how to host your web application to share with users. determine how to integrate your web application into your hardware system to share measurement data and interact with your hardware.

[DAY: 5]

MODULE V : Robot applications-ACTIVITY (5 Hrs)

We develop an approach to composing simple dynamical abstractions that partially automate the generation of complicated sensor motor programs. Specific topics that will be covered include: mobility in animals and robots, kinematics and dynamics of legged machines, and design of dynamical behavior via energy landscapes.

Bharath

INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Department of Mechatronics

CERTIFICATION COURSE ON ROBO DUINO- GRAVITY

PARTICIPANTS LIST

S.No	Reg.No	Name	Department
1.	U17MT058	NAGARAJ	Mechatronics
2.	U17MT057	SREE MUKESH	Mechatronics
3.	U17MT056	SURYA PRAKASH	Mechatronics
4.	U17MT055	YOKESH RAJ	Mechatronics
5.	U17MT054	VASANTH	Mechatronics
6.	U17MT053	GOKULAKRISHNAN	Mechatronics
7.	U17MT052	SATHISH KUMAR	Mechatronics
8.	U17MT051	BOLLEDDU RAVI TEJA	Mechatronics
9.	U17MT050	THIRUMURUGAN	Mechatronics
10.	U17MT049	NIKHILANTONY	Mechatronics
11.	U17MT048	PALANIYAPPAN	Mechatronics
12.	U17MT046	VIGNESHWARAN	Mechatronics
13.	U17MT045	ABDUL RAHAMAN	Mechatronics
14.	U17MT044	BADDITI	Mechatronics
15.	U17MT042	METHIL KRISHNAN	Mechatronics
16.	U17MT040	NIZAMUDEEN	Mechatronics

17.	U17MT023	PRAVEEN	Mechatronics
18.	U17MT022	GULAMGHOUSE	Mechatronics
19.	U17ME066	YETTELLA BHUVANESWARA REDDY .	Mechanical Engineering
20.	U17ME068	CHALLA GIRREESH GIREESH	Mechanical Engineering
21.	U17ME069	VEMPULURU RAKESH	Mechanical Engineering
22.	U17ME070	MARRIPATI BHARGAV	Mechanical Engineering
23.	U17ME072	CHITTIREDDY PAVAN	
24.	U17ME073	VARDA SAI SREEKANTH REDDY S	Mechanical Engineering
25.	U17ME066	YETTELLA BHUVANESWARA REDDY .	Mechanical Engineering
26.	U17ME068	CHALLA GIRREESH GIREESH	Mechanical Engineering
27.	U17AM015	KUTHE SOURABHSURESH	Automobile Engineering
28.	U17AM009	KARTHICK Y	Automobile Engineering
29.	U17AM014	KUMBHAR RAHUL	Automobile Engineering
30.	U17AM016-	SHAJAHAN S	Automobile Engineering
31.	U17AM018	DEVANATHA M	Automobile Engineering
32.	U17AM020-	RITHISHKRISHNA D V	Automobile Engineering
33.	U17AM021	-SHAIK REHAMAN	Automobile Engineering

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

BHARATH INSTITUTE OF SCIENCE & TECHNOLOGY

Selaiyur, Chennai – 73.

DEPARTMENT OF MECHATRONICS

VALVE ADDED COURSE

FEEDBACK FORM

Date: 9/9/2020

NAME	KARTHICK Y				
REGISTER.NO	ULTAM009				
COURSE TITLE	Certification Course on Robo duino Gravity				
	POOR	FAIR	GOOD	VERY GOOD	EXCELLENT
OVERALL PROGRAM				✓	
THE SPEAKER				✓	
AUDIO,VISIAL AIDS,TECHNOLOGY USED				✓	✓
PRESENTATION HAND OUTS				✓	

Karthick 9/9

STUDENT SIGNATURE

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

BHARATH INSTITUTE OF SCIENCE & TECHNOLOGY

Selaiyur, Chennai – 73.

DEPARTMENT OF MECHATRONICS

VALVE ADDED COURSE

FEEDBACK FORM

Date: 9/9/2020

NAME	Shajahan.				
REGISTER.NO	U17AM016				
COURSE TITLE	Certification course Robo duino Gravity				
	POOR	FAIR	GOOD	VERY GOOD	EXCELLENT
OVERALL PROGRAM				✓	
THE SPEAKER					✓
AUDIO,VISIAL AIDS,TECHNOLOGY USED				✓	
PRESENTATION HAND OUTS			✓		

Shaj 9/9

STUDENT SIGNATURE

BHARATH INSTITUTE OF SCIENCE AND TECHNOLOGY
DEPARTMENT OF MECHATRONICS

CERTIFICATE OF PARTICIPATION

This is to certify that

NAGARAJ

of Bharath Institute of Science and Technology

had attended the 5 day Value Added Program on

CERTIFICATION COURSE ON ROBO DUINO GRAVITY

organized by the Department of Mechatronics-

Bharath Institute of Higher Education and Research,Chennai on *5/9/2020 TO 9/9/2020*

V.G.VIJAYA/MUTHUKUMARAN
Coordinators

Dr.P.Sengottuvel
Resource Person

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

NAAC

Requisition Letter 1.09.2020

FROM

THE HOD

Department of Mechatronics

Bharath Institute of Higher Education and Research

Selaiyur-Chennai- 73

TO

THE DEAN ENGINEERING

Bharath Institute of Higher Education and Research

Selaiyur-Chennai- 73

Sir,

Subject: Requisition for conducting online Value Added course reg.

The school of Mechanical sciences had planned to conduct a value added course on the topic " Course on **"ARDUINO RTOS FROM GROUND UP BUILD REAL TIME"** dated from **5.9.2020 to 9.9.2020**. In this regard, I request you to kindly grant permission for conducting the same.

Thanking You

HOD

(Dr. Sengottavel)

Dept. of Mechatronics

Dean Engineering

(Dr.J.Hameed Hussain)

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Date: 1.9.2020

Department of Mechatronics

Circular

The Department of Mechatronics, BIHER is glad to conduct a 5 - day Value Added Program on **"ARDUINO RTOS FROM GROUND UP BUILD REAL TIME PROJECTS"** dated from 5.9.2020 for a period of 25 hours. Those who are interested to participate do register your name with the program coordinator mentioned below.

Resource persons:

Dr.P.Sengottuvel,
Professor,
BIHER

Mr.R.RAJA,
UNIKERZ Technologies,
Chennai.

Maximum No. of registration Allowed – 53

***First come first serve basis.**

Program Coordinator:
Mrs.G.VASUMATHI
Assistant Professor
Mrs.V.G.VIJAYA
Assistant Professor,
E-Mail: vijayasaravanan84@gmail.com
Mobile: 8870136732

HOD

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Department of Mechatronics

ARDUINO RTOS FROM GROUND UP BUILD REAL TIME PROJECTS

OBJECTIVES:

This course will show you how to his course teaches you the foundations of real-time systems and how to build real-time applications using FreeRTOS on Arduino boards. The course gives a detailed overview of the characteristics of the FreeRTOS real-time kernel, provides a detailed tutorial on the APIs required to implement the various features of **FreeRTOS** on Arduino and then goes on to build about **30 real-time projects** .

[DAY: 1]

- **MODULE I Build a Real-Time OS from scratch (5 Hrs)**

Build Your Own RealTime OS (RTOS) From Ground Up ™ on ARM 1 is the name of a training course from the Udemy site that teaches you how to create a Real-Time operating system with a variety of theoretical and practical exercises

[DAY: 2]

- **MODULE II Build collaborative timing (5 Hrs)**

In this course you will learn about all aspects of the Real-Time operating system, its different parts, how it works, and how to build it, and learn how to work with scheduling algorithms and interdisciplinary tools. .

[DAY: 3]

- **MODULE III Create alternate and rotating shift schedules (5 Hrs)**

you will be able to create your own operating system, create a turn-by-turn scheduler, calculate CPU utilization, and create an OS Kernel.

[DAY: 4]

- **MODULE IV Write assembly code (5 Hrs)**
- Having basic C programming skills is a plus point in this course.

[DAY: 5]

- **MODULE V : Build a Backup Package (5 Hrs)**

- Build a library and add custom palettes to share code and create add-ons. Calculates CPU usage Write assembly code

Bharath

INSTITUTE OF HIGHER EDUCATION AND RESEARCH

(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Department of Mechatronics

Value Added Course - ARDUINO RTOS FROM GROUND UP BUILD REAL TIME PROJECTS

PARTICIPANTS LIST

S.No	Reg.No	Name	Department
1.	U17ME001	MADHAVAN H	Mechanical Engineering
2.	U17ME006	STEPHEN CHITARANJAN B	Mechanical Engineering
3.	U17ME019	EDLA MANISH	Mechanical Engineering
4.	U17ME021	DARAM PRITHVI RAJ .	Mechanical Engineering
5.	U17ME035	DAMARLA SAI SANTHOSH .	Mechanical Engineering
6.	U17ME036	FEROZ AKHTAR M A	Mechanical Engineering
7.	U17ME038	HARIRAM K	Mechanical Engineering
8.	U17ME045	JEYABHARATHI R	Mechanical Engineering
9.	U17ME047	THIRUGNANA SAMMANDAM R	Mechanical Engineering
10.	U17ME056	KAMPARAJU RAM SRINIVAS RAJU .	Mechanical Engineering
11.	U17ME059	BALAJI P	Mechanical Engineering
12.	U17ME062	PAKAM SARATH KUMAR .	Mechanical Engineering
13.	U17ME066	YETTELLA BHUVANESWARA REDDY .	Mechanical Engineering
14.	U17ME068	CHALLA GIRREESH GIREESH	Mechanical Engineering
15.	U17ME069	VEMPULURU RAKESH	Mechanical Engineering
16.	U17ME075	VEDURUPARTHY KANAKA VENKATA SURESH .	Mechanical Engineering
17.	U17ME083	MOPURI RAMESH REDDY .	Mechanical Engineering

18.	U17ME089	KALLOL CHAKRABORTY	Mechanical Engineering
19.	U17ME090	LOKIREDDY VENKATA SHIVA KUMAR REDDY	Mechanical Engineering
20.	U17ME093	ANIPEDDI DEEKSHITH	Mechanical Engineering
21.	U17ME096	somasekhar kavati SOMASEKHAR	Mechanical Engineering
22.	U17ME099	DANGETI SATISH	Mechanical Engineering
23.	U17ME100	MARTHALA KARTHiK KUMAR REDDY .	Mechanical Engineering
24.	U17ME101	KATTA GOPI KRISHNA .	Mechanical Engineering
25.	U17ME102	HARISH DEWANGAN	Mechanical Engineering
26.	U17ME103	SRIPAD SAMEER MUNGIKAR .	Mechanical Engineering
27.	U17ME104	BOMMU SATYA BHANU PRASADA REDDY	Mechanical Engineering
28.	U17ME105	AVULA SAI KUMAR REDDY .	Mechanical Engineering
29.	U17ME107	KOTAKONDA MANOJ MANOJ	Mechanical Engineering
30.	U17ME119	CHELLUBOINA SAI KUMAR .	Mechanical Engineering
31.	U17ME120	SUDDAPALLI JASWANTH SAI KUMAR .	Mechanical Engineering
32.	U17ME125	BURRAREDDYPALLE RAJU	Mechanical Engineering
33.	U17AM002	PRAVEEN KUMAR G	Automobile Engineering
34.	U17AM003	ALIHUSSAINMURTAZA	Automobile Engineering
35.	U17AM004	NAVEEN KUMAR U	Automobile Engineering
36.	U17AM004	NAVEEN KUMAR U	Automobile Engineering
37.	U17AM006	RANJITH R	Automobile Engineering
38.	U17AM007	YOGESHWARAN K	Automobile Engineering

39.	U17AM009	KARTHICK Y	Automobile Engineering
40.	U17AM011	GUTTULA DEEPAK	Automobile Engineering
41.	U17AM012	ABINASH N	Automobile Engineering
42.	U17MT018	DINESH	Mechatronics
43.	U17MT017	DINESHKUMAR	Mechatronics
44.	U17MT016	MANOJ KUMAR	Mechatronics
45.	U17MT015	BAGIYARAJ	Mechatronics
46.	U17MT014	MOHAN PIRASATH	Mechatronics
47.	U17MT013	ARUN KUMAR	Mechatronics
48.	U17MT012	TAMILSELVAN	Mechatronics
49.	U17MT010	HARI NI	Mechatronics
50.	U17MT009	SUDAKAR	Mechatronics
51.	U17MT008	ARAVINTHRAJ	Mechatronics
52.	U17MT007	SELVAKUMARI	Mechatronics
53.	U17MT003	SAGAR AMIRDHARAJ	Mechatronics

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

BHARATH INSTITUTE OF SCIENCE & TECHNOLOGY

Selaiyur, Chennai – 73.

DEPARTMENT OF MECHATRONICS

VALVE ADDED COURSE
FEEDBACK FORM

Date: 5/9/2020

NAME	Ranjith				
REGISTER.NO	U17AM006				
COURSE TITLE	Arduino RTOS From Ground up build Real Time Project				
	POOR	FAIR	GOOD	VERY GOOD	EXCELLENT
OVERALL PROGRAM			✓		
THE SPEAKER				✓	
AUDIO,VISIAL AIDS,TECHNOLOGY USED					✓
PRESENTATION HAND OUTS				✓	

Ranjith S19

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

BHARATH INSTITUTE OF SCIENCE & TECHNOLOGY

Selaiyur, Chennai – 73.

DEPARTMENT OF MECHATRONICS

VALVE ADDED COURSE
FEEDBACK FORM

Date: 5.9.2020

NAME	U17ME059				
REGISTER.NO	BALAJI. P.				
COURSE TITLE	ARDUINO RTOS FROM GROUND UP BUILD REAL TIME PROJECTS				
	POOR	FAIR	GOOD	VERY GOOD	EXCELLENT
OVERALL PROGRAM			✓		
THE SPEAKER				✓	
AUDIO,VISIAL AIDS,TECHNOLOGY USED					✓
PRESENTATION HAND OUTS				✓	

Balaji.P
5/9/-

BHARATH INSTITUTE OF SCIENCE AND TECHNOLOGY
DEPARTMENT OF MECHATRONICS

CERTIFICATE OF PARTICIPATION

This is to certify that

NAVEENKUMAR.U

of Bharath Institute of Science and Technology

had attended the 5 day Value Added Program on "***ARDUINO RTOS FROM GROUND UP BUILD REAL TIME***

organized by the Department of Mechatronics- Bharath Institute of Higher Education and Research,Chennai on *5/9/2020 TO 9/9/2020*

G.VASUMATHI/V.G.VIJAYA

Coordinators

Dr.P.Sengottuvel
Resource Person

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

NAAC

Requisition Letter 1.09.2020

FROM

THE HOD

Department of Mechatronics

Bharath Institute of Higher Education and Research

Selaiyur-Chennai- 73

TO

THE DEAN ENGINEERING

Bharath Institute of Higher Education and Research

Selaiyur-Chennai- 73

Sir,

Subject: Requisition for conducting Value Added (online) course reg.

The school of Mechanical sciences had planned to conduct a 5 -day value added course on the topic **"EMBEDDED SOFTWARE DEVELOPMENT CONCEPTS"** dated from **5.9.2020 to 9.9.2020. In** this regard, I request you to kindly grant permission for conducting the same.

Thanking You

HOD

(Dr. Sengottuvel)

Dept. of Mechatronics

Dean Engineering

(Dr.J.Hameed Hussain)

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Date: 1.9.2020

Department of Mechatronics

Circular

The Department of Mechatronics, BIHER is glad to conduct a 5 - day Value Added Program on **"EMBEDDED SOFTWARE DEVELOPMENT CONCEPTS"** dated from 5.9.2020 for a period of 25 hours. Those who are interested to participate do register your name with the program coordinator mentioned below.

Resource persons:

Dr.P.Sengottuvel,
Professor,
BIHER

Dr.R.Srinivasan,
Software Trainer,Unikerz Technologies,
Chennai.

Maximum No. of registration Allowed – 57

***First come first serve basis.**

Program Coordinator:
Mrs.V.G.VIJAYA
Assistant Professor
Mr.J.DHANASEKAR
Assistant Professor,
E-Mail: vijayasaravanan84@gmail.com
Mobile: 8870136732

HOD

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Department of Mechatronics

EMBEDDED SOFTWARE DEVELOPMENT CONCEPTS

OBJECTIVES:

This course will show you how to Use embedded software so special as compared to common application software? Well, the most critical features of embedded systems are their greater reliability, accuracy, and performance speed enabling real-time computing. Besides, they have smaller size and lower power consumption, which opens for them a wider variety of applications.

[DAY: 1]

MODULE I Stability (5 Hrs)

Stability is of paramount importance. Unexpected behavior from an embedded system is inadmissible and poses serious risks. End users demand that embedded systems must have uniform behavior under all circumstances and be able to operate durably without service.

[DAY: 2]

MODULE II Compatibility and Integrity (5 Hrs)

With all their probable expertise in software development, many of them lack hands-on experience in implementing and updating their applications in IoT environment, especially with regard to security implications.

[DAY: 3]

MODULE III Debugging (5 Hrs)

Debugging is a general issue growing together with the number of connected devices – time and effort for debugging grows in parallel.

[DAY: 4]

MODULE IV **Launch Phase (5 Hrs)**

Time-to-market and time-to-revenue have always been tough indicators in embedded system development, especially in the IoT segment.

[DAY: 5]

MODULE V : Design Limitations (5 Hrs)

The challenges in design of embedded systems have always been in the same limiting requirements for decades: Small form factor;Low energy; Long-term stable performance without maintenance. The market demands from designers to pack more processing power and longer battery life into smaller spaces, which is often a tradeoff. Finally, depending on applications in IoT, there is a growing demand for manufacture of very scalable processor families ranging from cheap and ultra-low-power to maximum performance and highly configurable processors with forward-compatible instruction set.

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Department of Mechatronics

Value Added Course - EMBEDDED SOFTWARE DEVELOPMENT CONCEPTS

PARTICIPANTS LIST

S.No	Reg.No	Name	Department
1.	U17MT703	KOLLATI NAGA SIVA	Mechatronics
2.	U17MT701	KEERTHIVASAN	Mechatronics
3.	U17MT504	ARAVIND	Mechatronics
4.	U17MT503	DISHAN ASIR RAJ	Mechatronics
5.	U17MT502	MUTHU VIJAY RAJA	Mechatronics
6.	U17MT501	ADITHIYA	Mechatronics
7.	U17MT061	MOHAMMED ABBAS	Mechatronics
8.	U17MT060	DINESHKUMAR	Mechatronics
9.	U17MT059	RAKKESH ARAVIND	Mechatronics
10.	U17MT058	NAGARAJ	Mechatronics
11.	U17MT057	SREE MUKESH	Mechatronics
12.	U17MT056	SURYA PRAKASH	Mechatronics
13.	U17MT055	YOKESH RAJ	Mechatronics
14.	U17MT054	VASANTH	Mechatronics
15.	U17MT053	GOKULAKRISHNAN	Mechatronics
16.	U17MT052	SATHISH KUMAR	Mechatronics
17.	U17MT051	BOLLEDDU RAVI TEJA	Mechatronics
18.	U17MT050	THIRUMURUGAN	Mechatronics

19.	U17MT049	NIKHILANTONY	Mechatronics
20.	U17MT048	PALANIYAPPAN	Mechatronics
21.	U17MT046	VIGNESHWARAN	Mechatronics
22.	U17MT045	ABDUL RAHAMAN	Mechatronics
23.	U17MT044	BADDITI	Mechatronics
24.	U17MT042	METHIL KRISHNAN	Mechatronics
25.	U17MT040	NIZAMUDEEN	Mechatronics
26.	U17MT039	SAGADEVAN	Mechatronics
27.	U17MT038	DHARANIDHARAN	Mechatronics
28.	U17MT037	DINESH	Mechatronics
29.	U17MT036	SUSHIL KUMAR	Mechatronics
30.	U17MT035	HARIHARAN	Mechatronics
31.	U17MT034	JONNALAGADDA GOPALA KRISHNA MOHAN	Mechatronics
32.	U17MT033	KARTHIK	Mechatronics
33.	U17MT032	LAKKIREDDY PAVAN KALYAN	Mechatronics
34.	U17MT031	SYED SAMSUDEEN	Mechatronics
35.	U17MT029	PRAKASH RAJ	Mechatronics
36.	U17MT028	HEMALATHA	Mechatronics
37.	U17MT703	KOLLATI NAGA SIVA	Mechatronics
38.	U17MT701	KEERTHIVASAN	Mechatronics
39.	U17MT504	ARAVIND	Mechatronics
40.	U17MT503	DISHAN ASIR RAJ	Mechatronics
41.	U17MT502	MUTHU VIJAY RAJA	Mechatronics
42.	U17MT501	ADITHIYA	Mechatronics

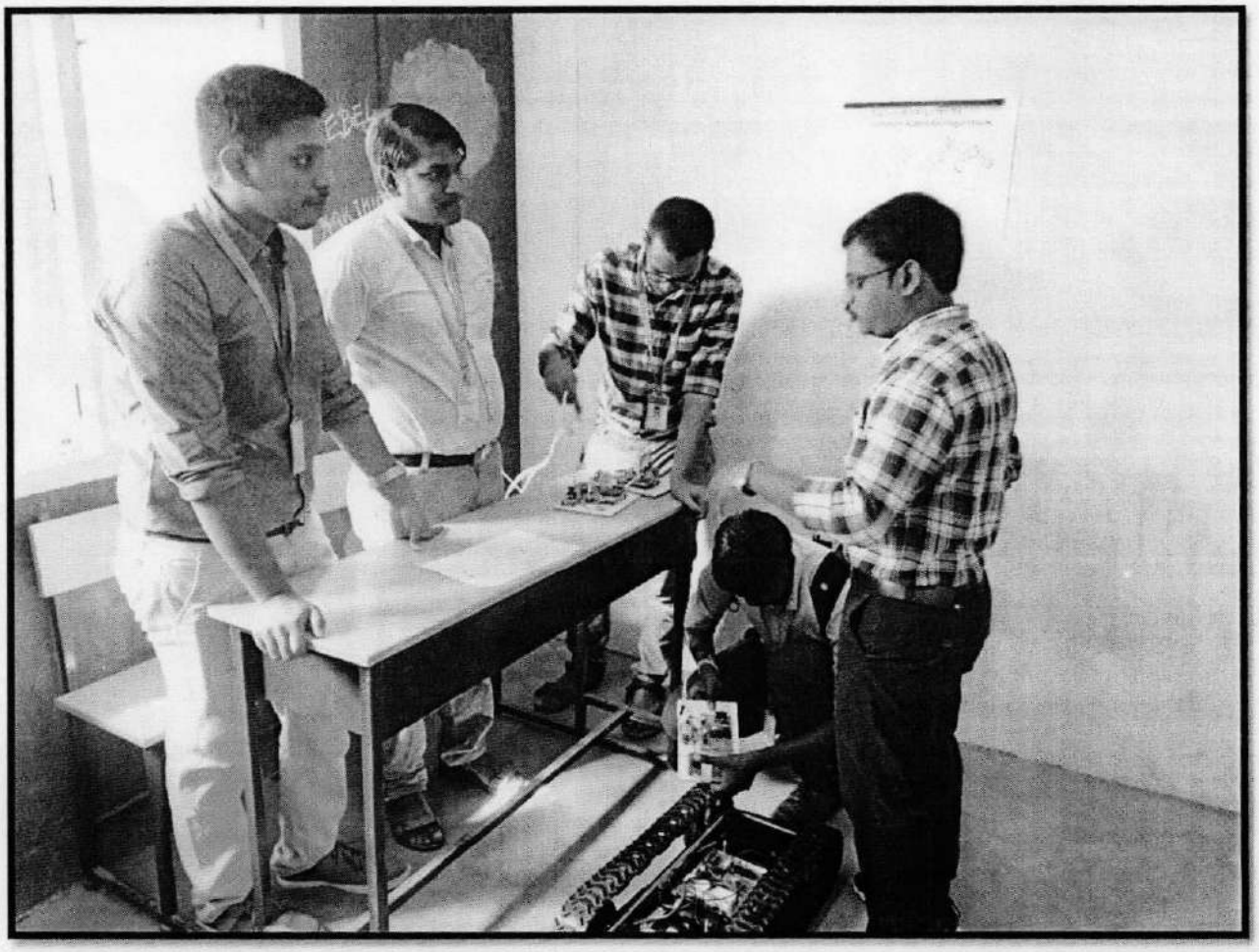
43.	U17MT061	MOHAMMED ABBAS	Mechatronics
44.	U17ME069	VEMPULURU RAKESH	Mechanical Engineering
45.	U17ME070	MARRIPATI BHARGAV	Mechanical Engineering
46.	U17ME072	CHITTIREDDY PAVAN	
47.	U17ME073	VARDA SAI SREEKANTH REDDY S	Mechanical Engineering
48.	U17ME066	YETTELLA BHUVANESWARA REDDY .	Mechanical Engineering
49.	U17ME068	CHALLA GIRREESH GIREESH	Mechanical Engineering
50.	U17AM015	KUTHE SOURABHSURESH	Automobile Engineering
51.	U17AM009	KARTHICK Y	Automobile Engineering
52.	U17AM014	KUMBHAR RAHUL	Automobile Engineering
53.	U17AM020-	RITHISHKRISHNA D V	Automobile Engineering
54.	U17AM021	-SHAIK REHAMAN	Automobile Engineering
55.	U17MT023	PRAVEEN	Mechatronics
56.	U17ME069	VEMPULURU RAKESH	Mechanical Engineering
57.	U17ME070	MARRIPATI BHARGAV	Mechanical Engineering

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Department of Mechatronics

EMBEDDED SOFTWARE DEVELOPMENT CONCEPTS

Value added course conducted Dr.R.Srinivasan, Software Trainer,Unikerz Technologies, Chennai.



Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

BHARATH INSTITUTE OF SCIENCE & TECHNOLOGY

Selaiyur, Chennai – 73.

DEPARTMENT OF MECHATRONICS

VALVE ADDED COURSE

FEEDBACK FORM

Date: 9/9/2020

NAME	ADITHYA.				
REGISTER.NO	U17MT501				
COURSE TITLE	EMBEDDED SOFTWARE DEVELOPMENT CONCEPTS				
	POOR	FAIR	GOOD	VERY GOOD	EXCELLENT
OVERALL PROGRAM		✓			
THE SPEAKER			✓		✓
AUDIO,VISIAL AIDS,TECHNOLOGY USED				✓	✓
PRESENTATION HAND OUTS					✓

Adithya

STUDENT SIGNATURE

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

BHARATH INSTITUTE OF SCIENCE & TECHNOLOGY

Selaiyur, Chennai – 73.

DEPARTMENT OF MECHATRONICS

VALVE ADDED COURSE

FEEDBACK FORM

Date: 9/9/2020

NAME	Yogesh Raj				
REGISTER.NO	U17MT055				
COURSE TITLE	Embedded Software Development Concepts.				
	POOR	FAIR	GOOD	VERY GOOD	EXCELLENT
OVERALL PROGRAM			✓		
THE SPEAKER			✓		
AUDIO,VISIAL AIDS,TECHNOLOGY USED			✓		
PRESENTATION HAND OUTS			✓		

Yogesh Raj

STUDENT SIGNATURE

BHARATH INSTITUTE OF SCIENCE AND TECHNOLOGY
DEPARTMENT OF MECHATRONICS

CERTIFICATE OF PARTICIPATION

This is to certify that

DINESH

of **Bharath Institute of Science and Technology**

had attended the 5 day Value Added Program on

EMBEDDED SOFTWARE DEVELOPMENT CONCEPTS

organized by the Department of Mechatronics-

Bharath Institute of Higher Education and Research,Chennai on *5/9/2020 TO 9/9/2020*

V.G.VIJAYA/J.DHANASEKAR

Coordinators

Dr P.Sengottuvel
Resource Person

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Date: 18.06.2020

Department of Automobile Engineering

Circular

The Department of Automobile Engineering, BIHER glad to conduct on six days value added program on "***Unmanned Vehicle Navigation***" from 02.07.2020 for 30 hours. Those who are interested to participate do register your name to the program coordinator.

Resource persons:

Dr.P.Naveenchandran
Prof. & Head
Dept. of Auto. Engg.
BIHER

Mr.C.Thamotharan
Associate Professor,
Dept. of Auto. Engg.
BIHER

Program Coordinator:
Mr.E.Raja
Asst. Professor
rajaaerospace@gmail.com

(HOD-Auto)

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Department of Automobile Engineering

Course on "Unmanned Vehicle Navigation"

OBJECTIVES:

- To introduce the parts and functions of UAV
- To explain the concepts of Aerodynamics, Propulsion & Structures of Model
- To enable the students to understand the working principle and components of UAV
- To Demonstrate the design process of UAV and create confidence in exploring

[DAY: 1]

MODULE 1 Introduction to Aerial Robotics (5 Hrs)

[DAY: 2]

MODULE 2 Geometry and Mechanics of UAV (5 Hrs)

[DAY: 3]

MODULE 3 Pay Load for UAV (5 Hrs)

[DAY: 4]

MODULE 4 Launching systems of UAV (5 Hrs)

[DAY: 5]

MODULE 5: Navigation and Guidance of UAV (5 Hrs)

[DAY: 6]

Practical Session for using Unmanned Vehicle Models **(5 Hrs)**

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Department of Automobile Engineering

Value Added (online) Course – Unmanned Vehicle Model

(02.07.2020 to 09.07.2020)

PARTICIPANTS LIST

S.NO	REG.NO	NAME	DEPARTMENT
1	U14AM001	ABDUL KHADAR BASHA M	Automobile
2	U14AM002	ABHISHEK SINGH KUSHWAHA	Automobile
3	U14AM006	ANDREW AGGASI.C.	Automobile
4	U14AM007	ANTHONY RAJ.J	Automobile
5	U14AM008	ARAVIND REDDY.M	Automobile
6	U14AM010	CHADUNUPALLI SRIKANTH	Automobile
7	U14AM012	DEVA KUMAR.R	Automobile
8	U14AM015	GULSHAN KUMAR	Automobile
9	U14AM016	HAARIS SATHEESH	Automobile
10	U14AM017	HARIOM PARMAR	Automobile
11	U14AM020	KANUGONDA HARI KIRAN REDDY	Automobile
12	U14AM023	LENIN .R	Automobile
13	U14AM025	MOHAMED ANSAR.S	Automobile
14	U14AM027	MUTHU MANIKKAMOORITHY.R	Automobile
15	U14AM028	NAVEEN KUMAR .V	Automobile
16	U14AM033	PRITHIVIRAJ K.	Automobile
17	U14AM035	RAGHAVENDRAN . S.D	Automobile
18	U14AM036	RAKTIM PAL	Automobile
19	U14AM038	REUBAN DAVID.D	Automobile
20	U14AM042	SIBBALA NIKHIL RAM	Automobile

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Department of Automobile Engineering

Value Added (online) Course – Unmanned Vehicle Model

(02.07.2020 to 09.07.2020)

PARTICIPANTS LIST

S.NO	REG.NO	NAME	DEPARTMENT
21	U14ME005	ABHISHEK KUMAR	Mechanical
22	U14ME009	ADDURI PAVAN KUMAR	Mechanical
23	U14ME014	AJAY KUMAR SHARMA	Mechanical
24	U14ME018	AJITHKUMAR.P	Mechanical
25	U14ME019	AKHLAK ANSARI	Mechanical
26	U14ME022	ALLWYN EPHRAIM.S.	Mechanical
27	U14ME026	AMIT KUMAR PANDEY	Mechanical
28	U14ME029	ANAND.U	Mechanical
29	U14ME031	ANGADI DINESH KUMAR	Mechanical
30	U14ME032	AGNEL WILFRED .A	Mechanical
31	U14ME034	ANIL KUMAR	Mechanical
32	U14ME037	ANUJ KUMAR	Mechanical
33	U14ME040	ARAVIND.V	Mechanical
34	U14ME042	ARAVINDHAN.B	Mechanical
35	U14ME043	ARSHAD JAMAL	Mechanical
36	U14ME044	ARUN .H	Mechanical
37	U14ME046	ARUN KUMAR .D	Mechanical
38	U14ME048	MD ASGAR ANSARI	Mechanical

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Department of Automobile Engineering

Value Added (online) Course – Unmanned Vehicle Model

(02.07.2020 to 09.07.2020)

PARTICIPANTS LIST

S.NO	REG.NO	NAME	DEPARTMENT
39	U14MT004	ARULSELVAN.A	Mechatronics
40	U14MT012	NIVIN DEVASSY	Mechatronics
41	U14MT021	SARAVANAN.P	Mechatronics
42	U14MT024	VANNIYAR MANIKANDAN PERUMAL	Mechatronics
43	U14MT026	VIGNESH.R	Mechatronics
44	U14MT701	YUVARAJ.S	Mechatronics
45	U14MT707	PATIL TEJAS SUNIL	Mechatronics
46	U14MT710	CHANDRAN.R	Mechatronics

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

BHARATH INSTITUTE OF SCIENCE AND TECHNOLOGY

No.173, Agharam Road, Selaiyur, Chennai - 600 073.

Department of Automobile Engineering

Participation Certificate

This is to certify that

DEVAKUMAR R (U14AM012)

has attended the value added program on **" Unmanned Vehicle Navigation"** *organized by Department of Automobile Engineering, Bharath Institute of Higher Education and Research, Chennai, on* **02-07-2020 to 09-07-2020**

Mr.E.Raja
Co-ordinator

Dr.P.Naveenchandran
Prof. & Head

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

BHARATH INSTITUTE OF SCIENCE AND TECHNOLOGY

No.173, Agharam Road, Selaiyur, Chennai - 600 073.

Department of Automobile Engineering

Participation Certificate

This is to certify that

AJAY KUMAR SHARMA (U14ME014)

has attended the value added program on **"Unmanned Vehicle Navigation"** *organized by Department of Automobile Engineering, Bharath Institute of Higher Education and Research, Chennai, on* **02-07-2020 to 09-07-2020**

Mr.E.Raja
Co-ordinator

Dr.P.Naveenchandran
Prof. & Head

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

BHARATH INSTITUTE OF SCIENCE AND TECHNOLOGY
No.173, Agharam Road, Selaiyur, Chennai - 600 073.

Department of Automobile Engineering

Participation Certificate

This is to certify that

SARAVANAN P (U14MT021)

has attended the value added program on **" Unmanned Vehicle Navigation"** *organized by Department of Automobile Engineering, Bharath Institute of Higher Education and Research, Chennai, on* **02-07-2020 to 09-07-2020**

Mr.E.Raja
Co-ordinator

Dr.P.Naveenchandran
Prof. & Head

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Bharath Institute of Higher Education and Research, Chennai-600073

STUDENT FEEDBACK FORM FOR VALUE ADDED COURSES

School : School of Mechanical Engineering
Department : Automobile Engineering

Name /code of the value added course offered: Unmanned Vehicle Navigation
Semester : III Sem.
Register Number : U14AM007
Staff Coordinator : Mr. E. Raja
Staff Handling : Dr. P. Naveen Chandran

STUDENT FEEDBACK

Dear Student,

You are required to give your feedback on the following aspects. Please tick in therespective column.

S.No	Criteria	Rating				
		Excellent	Very good	Good	Fair	Satisfactory
1	Course content	✓				
2	Skill development					
3	Motivation		✓			
4	Regularity and punctuality of teacher		✓			
5	Coverage of syllabus		✓			
6	Interaction	✓				
7	Individual attention	✓				
8	Outcome		✓			
9	Other suggestions	—	Nil	—		

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Bharath Institute of Higher Education and Research, Chennai-600073

STUDENT FEEDBACK FORM FOR VALUE ADDED COURSES

School : Mechanical Engineering
Department : Mechanical

Name /code of the value added course offered: Unmanned vehicle Navigation.
Semester :

Register Number : U14ME022
Staff Coordinator : Mr. E. Raja.
Staff Handling : Dr. P. Naveen Chandran, T. Thamotharan.

STUDENT FEEDBACK

Dear Student,

You are required to give your feedback on the following aspects. Please tick in therespective column.

S.No	Criteria	Rating				
		Excellent	Very good	Good	Fair	Satisfactory
1	Course content	✓				
2	Skill development	✓	✓			
3	Motivation	✓	✓			
4	Regularity and punctuality of teacher	✓				
5	Coverage of syllabus	✓				
6	Interaction	✓				
7	Individual attention		✓			
8	Outcome		✓			
9	Other suggestions	—	—	—	—	—

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Bharath Institute of Higher Education and Research, Chennai-600073

STUDENT FEEDBACK FORM FOR VALUE ADDED COURSES

School : Mechanical Engg
Department : Mechatronics

Name /code of the value added course offered: Un Manned vehicle Navigation.
Semester :

Register Number : U14MT024

Staff Coordinator : S. Raja

Staff Handling : Dr. P. Naveen Chandram

STUDENT FEEDBACK

Dear Student,

You are required to give your feedback on the following aspects. Please tick in therespective column.

S.No	Criteria	Rating				
		Excellent	Very good	Good	Fair	Satisfactory
1	Course content		✓			
2	Skill development			✓		
3	Motivation		✓	X		
4	Regularity and punctuality of teacher	✓				
5	Coverage of syllabus		✓			
6	Interaction			✓		
7	Individual attention					
8	Outcome					
9	Other suggestions					

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Date: 04.02.2021

Department of Automobile Engineering

Circular

The of Department of Automobile Engineering, BIHER glad to conduct on six days value added program on "***Automotive Chassis Design***" from 15.02.2021 for 30 hours. Those who are interested to participate do register your name to the program coordinator.

Resource persons:

Dr.P.Naveenchandran
Prof. & Head
Dept. of Auto. Engg.
BIHER

Mr.C.Thamotharan
Associate Professor,
Dept. of Auto. Engg.
BIHER

Program Coordinator:
Mr.E.Raja
Asst. Professor
raaerospace@gmail.com

(HOD-Auto)

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Department of Automobile Engineering

(online) Course on "Automotive Chassis Design"

OBJECTIVES:

- To make students familiar with the constructional details of chassis and body
- To understand about various steering systems, steering linkages and steering gear boxes and power steering
- To study the different components in the drive line and types of final drive.
- To introduce students to the rear axles and types of suspension systems
- To introduce students to braking systems, wheels and tyres

[DAY: 1]
MODULE 1 Constructional details of chassis and body (5 Hrs)

[DAY: 2]
MODULE 2 Steering systems, linkages and gear boxes (5 Hrs)

[DAY: 3]
MODULE 3 Different components in the drive line and types of final drive (5 Hrs)

[DAY: 4]
MODULE 4 Study of rear axles and types of suspension systems (5 Hrs)

[DAY: 5]
MODULE 5: Study of braking systems, wheels and tyres (5 Hrs)

[DAY: 6]
MODULE 6: Practical Design of Automotive Chassis Design (5 Hrs)

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Department of Automobile Engineering

Value Added Course - Automotive Chassis Design

(15.02.2021 to 20.02.2021)

PARTICIPANTS LIST

S.NO	REG.NO	NAME	DEPARTMENT
1	U15AM001	ABHIJIT ARYA	Automobile
2	U15AM004	ASWIN S	Automobile
3	U15AM005	BHARANIDHARAN C	Automobile
4	U15AM007	EDULA VISHNU GOVARDHAN REDDY	Automobile
5	U15AM008	GANNI VINEETH SREE SAI	Automobile
6	U15AM009	GOKULPRASHANTH V	Automobile
7	U15AM011	INNAMULHASAN S	Automobile
8	U15AM012	MANIKANDAN A	Automobile
9	U15AM014	MATHAN KUMAR S	Automobile
10	U15AM017	MUTUM NAOBA SINGH	Automobile
11	U15AM020	PIHE SHIU	Automobile
12	U15AM021	PREM KUMAR	Automobile
13	U15AM022	RAJU BARMAN	Automobile
14	U15AM023	RAMA KRISHNAN V K	Automobile

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Department of Automobile Engineering

Value Added Course - Automotive Chassis Design (15.02.2021 to 20.02.2021)

PARTICIPANTS LIST

S.NO	REG.NO	NAME	DEPARTMENT
15	U15ME007	AGASH RAJ R	Mechanical
16	U15ME011	AKIRI VENKATESH	Mechanical
17	U15ME016	AMBATI ADI ESWAR REDDY.	Mechanical
18	U15ME020	ANUP KUMAR SRIVASTAWA	Mechanical
19	U15ME024	ARUN KUMAR	Mechanical
20	U15ME077	HULENDRA KUMAR	Mechanical
21	U15ME095	KARRI YASWANTH SRINIVAS	Mechanical
22	U15ME164	NEHAL AHMAD	Mechanical
23	U15ME177	PRABHU G	Mechanical
24	U15ME274	YOGARAJ R	Mechanical
25	U15ME290	SHAIK SHAHEEN	Mechanical
26	U15ME702	SARAVANAN M	Mechanical
27	U15ME715	GAIOS SOHSHANG	Mechanical

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Department of Automobile Engineering

Value Added Course - Automotive Chassis Design (15.02.2021 to 20.02.2021)

PARTICIPANTS LIST

S.NO	REG.NO	NAME	DEPARTMENT
28	U15MT002	BALAJI N	Mechatronics
29	U15MT005	KARTHIGAYAN P	Mechatronics
30	U15MT007	MOHAMMED IDRIS S	Mechatronics
31	U15MT011	VIJAY S	Mechatronics
32	U15MT014	PADIYACHI MONISH DANASEKAR	Mechatronics
33	U15MT703	MOHANAKUMARESAN B	Mechatronics
34	U15MT705	JAI HARISH M	Mechatronics

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

BHARATH INSTITUTE OF SCIENCE AND TECHNOLOGY
No.173, Agharam Road, Selaiyur, Chennai - 600 073.

Department of Automobile Engineering

Participation Certificate

This is to certify that

BHARANIDHARAN C (U15AM005)

has attended the value added program on **" Automotive Chassis Design"** *organized by Department of Automobile Engineering, Bharath Institute of Higher Education and Research, Chennai, on* **15-02-2021 to 20-02-2021.**

Mr.E.Raja
Co-ordinator

Dr.P.Naveenchandran
Prof. & Head

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

BHARATH INSTITUTE OF SCIENCE AND TECHNOLOGY
No.173, Agharam Road, Selaiyur, Chennai - 600 073.

Department of Automobile Engineering

Participation Certificate

This is to certify that

VIJAY S (U15MT011)

has attended the value added program on **"Automotive Chassis Design"** *organized by Department of Automobile Engineering, Bharath Institute of Higher Education and Research, Chennai, on* **15-02-2021 to 20-02-2021.**

Mr.E.Raja
Co-ordinator

Dr.P.Naveenchandran
Prof. & Head

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

BHARATH INSTITUTE OF SCIENCE AND TECHNOLOGY
No.173, Agharam Road, Selaiyur, Chennai - 600 073.

Department of Automobile Engineering

Participation Certificate

This is to certify that

YOGARAJ R (U15ME274)

has attended the value added program on **"Automotive Chassis Design"** *organized by Department of Automobile Engineering, Bharath Institute of Higher Education and Research, Chennai, on* **15-02-2021 to 20-02-2021.**

Mr.E.Raja
Co-ordinator

Dr.P.Naveenchandran
Prof. & Head

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Bharath Institute of Higher Education and Research,Chennai-600073

STUDENT FEEDBACK FORM FOR VALUE ADDED COURSES

School : Mechanical
Department : Automobile

Name /code of the value added course offered: Automotive Chassis design.
Semester :
Register Number : U15AM014
Staff Coordinator : E.RAJA
Staff Handling : Dr.P.Naveenchandran, C.Thamotharan.

STUDENT FEEDBACK

Dear Student,

You are required to give your feedback on the following aspects. Please tick in therespective column.

S.No	Criteria	Rating				
		Excellent	Very good	Good	Fair	Satisfactory
1	Course content	✓				
2	Skill development	✓	✓			
3	Motivation	✓				
4	Regularity and punctuality of teacher	✓				
5	Coverage of syllabus	✓				
6	Interaction	✓				
7	Individual attention	✓				
8	Outcome		✓			
9	Other suggestions	-	-	-	-	-

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Bharath Institute of Higher Education and Research, Chennai-600073

STUDENT FEEDBACK FORM FOR VALUE ADDED COURSES

School : Mechanical
Department : Mechanical

Name /code of the value added course offered: Automotive Chassis Design
Semester :

Register Number : VIS ME 274
Staff Coordinator : Mr. E. Raja
Staff Handling : Dr. P. Naveen chandran & Mr. C. Thamothar

STUDENT FEEDBACK

Dear Student,

You are required to give your feedback on the following aspects. Please tick in therespective column.

S.No	Criteria	Rating				
		Excellent	Very good	Good	Fair	Satisfactory
1	Course content	✓				
2	Skill development		✓			
3	Motivation		✓			
4	Regularity and punctuality of teacher		✓			
5	Coverage of syllabus	✓				
6	Interaction		✓			
7	Individual attention			✓		
8	Outcome	✓				
9	Other suggestions	—	—	—	—	—

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Bharath Institute of Higher Education and Research, Chennai-600073

STUDENT FEEDBACK FORM FOR VALUE ADDED COURSES

School : Mechanical Engg
Department : Mechatronics

Name /code of the value added course offered: Automotive chassis design
Semester :

Register Number : U15MT011
Staff Coordinator : E. RAJA
Staff Handling : Dr. P. NAVEEN CHANDRAN

STUDENT FEEDBACK

Dear Student,

You are required to give your feedback on the following aspects. Please tick in therespective column.

S.No	Criteria	Rating				
		Excellent	Very good	Good	Fair	Satisfactory
1	Course content		✓			
2	Skill development			✓		
3	Motivation		✓			
4	Regularity and punctuality of teacher				✓	
5	Coverage of syllabus		✓			
6	Interaction			✓		
7	Individual attention					
8	Outcome					
9	Other suggestions					

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Date: 02.06.2021

Department of Automobile Engineering

Circular

The of Department of Automobile Engineering, BIHER glad to conduct on six days value added program on "***Course on Engine Overhauling***" from 13.06.2021 for 30 hours. Those who are interested to participate do register your name to the program coordinator.

Resource persons:

Dr.P.Naveenchandran
Prof. & Head
Dept. of Auto. Engg.
BIHER

Mr.C.Thamotharan
Associate Professor,
Dept. of Auto. Engg.
BIHER

Program Coordinator:
Mr.E.Raja
Asst. Professor
rajaerospace@gmail.com

(HOD-Auto)

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Department of Automobile Engineering

(Online) Course on "Engine Overhauling"

OBJECTIVES:

- To enable student to understand the method of removal of Cylinder Head and Piston Connecting Rod Assembly
- To study the procedure of Cleaning and Overhauling Of Cylinder Head and Piston Connecting Rod Assembly
- To make students familiar with the Calibration of Cylinder Liner, Piston, Piston Rings, Ovality Check of Connecting Rod etc.,
- To study the procedure of Overhauling of Fuel Injection Pump, Attached JCW Pump
- To enable student to Assemble Cylinder Head, Piston Connecting Rod Etc.,

[DAY: 1]
MODULE 1 Method of removal of Cylinder Head and Piston Connecting Rod Assembly (5 Hrs)

[DAY: 2]
MODULE 2 Cleaning and Overhauling Of Cylinder Head and Piston Connecting Rod Assembly (5 Hrs)

[DAY: 3]
MODULE 3 Calibration of Cylinder Liner, Piston, Piston Rings, Ovality Check of Connecting Rod etc., (5 Hrs)

[DAY: 4]
MODULE 4 Overhauling of Fuel Injection Pump, Attached JCW Pump (5 Hrs)

[DAY: 5]
MODULE 5: Assembly of Cylinder Head, Piston Connecting Rod Etc., (5 Hrs)

[DAY: 6]
MODULE 6: Practical Session on Engine Overhauling (5 Hrs)

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Department of Automobile Engineering
Value Added Course – Engine Overhauling
(13.06. 2021 to 18.06. 2021)

PARTICIPANTS LIST

S.NO	REG.NO	NAME	DEPARTMENT
1	U15AM002	ABISHEK RAJAGOPAL	Automobile
2	U15AM006	GIRIDAAR A	Automobile
3	U15AM010	HASHIM JAWAD MELEDATH	Automobile
4	U15AM013	MARIA SUBITCHAM VINITH N	Automobile
5	U15AM015	MOHAMED ASHIF M	Automobile
6	U15AM016	MOHAMMED VASIM A	Automobile
7	U15AM027	SRIHARI K	Automobile
8	U15AM028	TARIGOPPALA NITHIN KUMAR	Automobile
9	U15AM029	VIGNESH A	Automobile
10	U15AM030	VISHANTH K	Automobile
11	U15AM034	DERIN M	Automobile
12	U15AM036	RUPESH RANA	Automobile
13	U15AM703	K.L.V. KOTESHWAR RAO	Automobile
14	U15AM704	INNAMURI SHANMUKA KIRAN	Automobile
15	U15AM705	REMILAN SUCHIANG	Automobile

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Department of Automobile Engineering
Value Added Course – Engine Overhauling
(13.06. 2021 to 18.06. 2021)

PARTICIPANTS LIST

S.NO	REG.NO	NAME	DEPARTMENT
1	U15AM002	ABISHEK RAJAGOPAL	Automobile
2	U15AM006	GIRIDAAR A	Automobile
3	U15AM010	HASHIM JAWAD MELEDATH	Automobile
4	U15AM013	MARIA SUBITCHAM VINITH N	Automobile
5	U15AM015	MOHAMED ASHIF M	Automobile
6	U15AM016	MOHAMMED VASIM A	Automobile
7	U15AM027	SRIHARI K	Automobile
8	U15AM028	TARIGOPPALA NITHIN KUMAR	Automobile
9	U15AM029	VIGNESH A	Automobile
10	U15AM030	VISHANTH K	Automobile
11	U15AM034	DERIN M	Automobile
12	U15AM036	RUPESH RANA	Automobile
13	U15AM703	K.L.V. KOTESHWAR RAO	Automobile
14	U15AM704	INNAMURI SHANMUKA KIRAN	Automobile
15	U15AM705	REMILAN SUCHIANG	Automobile

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Department of Automobile Engineering

Value Added Course – Engine Overhauling

(13.06. 2021 to 18.06. 2021)

PARTICIPANTS LIST

S.NO	REG.NO	NAME	DEPARTMENT
16	U15ME015	ALTAF HUSAIN	Mechanical
17	U15ME022	ARIVARASU J	Mechanical
18	U15ME027	ASHISH PATEL	Mechanical
19	U15ME044	BODDA DINESH	Mechanical
20	U15ME088	JOHNSON J	Mechanical
21	U15ME095	KARRI YASWANTH SRINIVAS	Mechanical
22	U15ME114	LALASRAFI JEETHENDRA	Mechanical
23	U15ME156	NARAYANAN M	Mechanical
24	U15ME175	POTNURU SATISH	Mechanical
25	U15ME231	SHANKAR A	Mechanical
26	U15ME247	SURYA S	Mechanical
27	U15ME264	VIMAL KUMAR J.V	Mechanical
28	U15ME701	GILL JEFRIN J	Mechanical
29	U15ME714	IENGSKHAN KUPAR DKHAR	Mechanical

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Department of Automobile Engineering

Value Added Course – Engine Overhauling
(13.06.2021 to 18.06.2021)

PARTICIPANTS LIST

S.NO	REG.NO	NAME	DEPARTMENT
30	U15MT001	AJITH S	Mechatronics
31	U15MT004	INAYATHULLA A	Mechatronics
32	U15MT008	OVIAN NICHOLAS	Mechatronics
33	U15MT010	TADIKONDA SAI TEJA	Mechatronics
34	U15MT012	MOHAMMED MOIDEEN RIYAZ M	Mechatronics
35	U15MT702	NEELAM SRIKANTH	Mechatronics
36	U15MT704	HARI PRASATH V K	Mechatronics

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

BHARATH INSTITUTE OF SCIENCE AND TECHNOLOGY
No.173, Agharam Road, Selaiyur, Chennai - 600 073.

Department of Automobile Engineering

Participation Certificate

This is to certify that

SRIHARI K (U15AM027)

has attended the value added program on "Engine Overhauling" organized by Department of Automobile Engineering, Bharath Institute of Higher Education and Research, Chennai, on 13-06-2021 to 18-06-2021

Mr.E.Raja
Co-ordinator

Dr.P.Naveenchandran
Prof. & Head

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

BHARATH INSTITUTE OF SCIENCE AND TECHNOLOGY
No.173, Agharam Road, Selaiyur, Chennai - 600 073.

Department of Automobile Engineering

Participation Certificate

This is to certify that

BODDA DINESH (U15ME044)

has attended the value added program on **"Engine Overhauling"** *organized by Department of Automobile Engineering, Bharath Institute of Higher Education and Research, Chennai, on* **13-06-2021 to 18-06-2021**

Mr.E.Raja
Co-ordinator

Dr.P.Naveenchandran
Prof. & Head

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

BHARATH INSTITUTE OF SCIENCE AND TECHNOLOGY
No.173, Agharam Road, Selaiyur, Chennai - 600 073.

Department of Automobile Engineering

Participation Certificate

This is to certify that

OVIAN NICHOLAS (U15MT008)

has attended the value added program on **"Engine Overhauling"** *organized by Department of Automobile Engineering, Bharath Institute of Higher Education and Research, Chennai, on* **13-06-2021 to 18-06-2021**

Mr.E.Raja
Co-ordinator

Dr.P.Naveenchandran
Prof. & Head

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Bharath Institute of Higher Education and Research, Chennai-600073

STUDENT FEEDBACK FORM FOR VALUE ADDED COURSES

School : School of Mechanical Engineering
Department : Automobile Engineering

Name /code of the value added course offered: Engine Overhauling
Semester :
Register Number : U15AM006
Staff Coordinator : Mr. E. RAJA
Staff Handling : Dr. P. NAVEEN CHANDRAN, Mr. C. THAMOTHARAN

STUDENT FEEDBACK

Dear Student,

You are required to give your feedback on the following aspects. Please tick in therespective column.

S.No	Criteria	Rating				
		Excellent	Very good	Good	Fair	Satisfactory
1	Course content	✓				
2	Skill development		✓			
3	Motivation	✓				
4	Regularity and punctuality of teacher	✓				
5	Coverage of syllabus		✓			
6	Interaction	✓				
7	Individual attention		✓			
8	Outcome		✓			
9	Other suggestions	—	—			

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Bharath Institute of Higher Education and Research, Chennai-600073

STUDENT FEEDBACK FORM FOR VALUE ADDED COURSES

School : MECHANICAL
Department : MECHANICAL

Name /code of the value added course offered: Engine Overhauling
Semester :

Register Number : U15ME088
Staff Coordinator : Mr. E. Raja
Staff Handling : Dr. P. Naveenchandran & Mr. C. Themotharan

STUDENT FEEDBACK

Dear Student,

You are required to give your feedback on the following aspects. Please tick in therespective column.

S.No	Criteria	Rating				
		Excellent	Very good	Good	Fair	Satisfactory
1	Course content	✓				
2	Skill development	✓				
3	Motivation		✓			
4	Regularity and punctuality of teacher		✓			
5	Coverage of syllabus	✓				
6	Interaction	✓				
7	Individual attention		✓			
8	Outcome		✓			
9	Other suggestions	—	—	—	—	—

Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

Bharath Institute of Higher Education and Research,Chennai-600073

STUDENT FEEDBACK FORM FOR VALUE ADDED COURSES

School : Mechanical Engg
Department : Mechatronics

Name /code of the value added course offered: Course on Engine over hauling
Semester :

Register Number : U15MT008
Staff Coordinator : B. Raja
Staff Handling : Dr. P. Naveen chandaran, C. Dharmendran.

STUDENT FEEDBACK

Dear Student,

You are required to give your feedback on the following aspects. Please tick in therespective column.

S.No	Criteria	Rating				
		Excellent	Very good	Good	Fair	Satisfactory
1	Course content	✓				
2	Skill development		✓			
3	Motivation		✓			
4	Regularity and punctuality of teacher	✓				
5	Coverage of syllabus		✓			
6	Interaction			✓		
7	Individual attention		✓			
8	Outcome	✓				
9	Other suggestions					