



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 , T.N - 600 073.

Requisition Letter

Date:30.05.2022

From
Dr. K.P.Kaliyamurthie,
Professor & Head,
Department of CSE,
Bharath Institute of Higher Education and Research,
Chennai

To
The Dean Engineering,
Bharath Institute of Higher Education and Research,
Chennai

Respected sir

Subject:Request of Permission to conduct a value-added course on **“Computational Mathematics with Excel”** -Reg

With reference to above subject, I would like to bring to your kind notice that, our department interested to organize value added course on **“Computational Mathematics with Excel”** in our campus premises on **06.06.2022**, students would be participating in this course. We request you kindly to give permission to organize this event.

Venue: **CSE Smart Room**

Timing: 3:30 PM to 5:30 PM

Submitted to Principal for approval to organize this value-added course.

HOD

HEAD OF DEPARTMENT
Department of Computer Science & Engg.,
Bharath Institute of Higher Education & Research
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Chennai-600 073. INDIA



DEAN ENGINEERING



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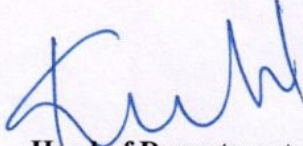
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CIRCULAR

06.06.2022

The School of computing, Bharath Institute of Higher Education and Research is planned to conduct a certification value added course on **Computational Mathematics with Excel** for the benefit of II, III and IV year students. This course is scheduled from 06.06.2022 for 30 hours which includes theory and practical. The timings are 3:30 PM to 5:30 PM from Monday to Friday.

All Registered Students must attend all the classes without fail. The following faculty members are assigned to handle the course. S.NO	Name of the Faculty	Designation
1	Dr.C.Nalini	Professor
2	Dr.C.Rajabhushanam	Professor


Head of Department

To

Copy to CSE

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CERTIFICATE COURSE ON COMPUTATIONAL MATHEMATICS WITH EXCEL

Date of Introduction of the Course: 06.06.2022

COURSE SYLLABUS

1. Declining Prices, Profits and Graphing

Graph of a function max/min suits

2. Price Data and Trendlines

Data Fitting, Least squares

3. Price Data for Two Markets and Linear Estimation

Functions of 2 variables, Data Fitting in 2 variables

4. Property Appraisal and Linear Estimation

functions of several variables best fits without graphing

5. Savings Plans and First-Order Finite Differences

Finite Difference equations, Financial Modelling, Exact solution to difference equations

6. Loans and First Order Finite Differences

Finite Difference equations, Exact solution of a linear difference equation

7. Cooling Model and Euler Finite Difference Method

Physical Modelling, Differential equations as limit of difference equation, Closed form solution, Equilibrium

8. Population Models and Exponential Functions

Population Modeling, Differential equations, Closed-form solutions, Exponential growth

9. Minimum cost of a display area and derivatives

Optimization (max/min) constraint, max/min by differentiation

10. Profit from 2 markets and partial derivatives

Multivariate Optimization

11. Alcohol Breath Testing and Least Squares Data Fitting

least squares, Critique of mathematical models

12. Population Growth: Raleigh and Wake County

Population models, Closed formsolutions of differential equationslogs

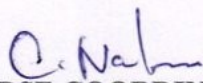
COURSE OBJECTIVES

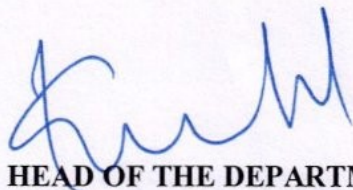
In this course we plan to give students an overview of the field of computational mathematics with excel, and an in-depth study into its enabling technologies and main building blocks. It is our objective that students will develop the skills needed to become a practitioner or carry out research projects in this domain.

Specifically, the course has the following objectives:

Students will learn

- 1) Basic ways of working with data and mathematical models
- 2) Become competent at using spreadsheets and computer algebra systems
- 3) Solidify their understanding of the concepts in Calculus
- 4) Apply knowledge to real-world problems


COURSE COORDINATOR


HEAD OF THE DEPARTMENT

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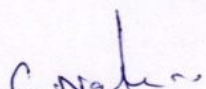
Date of Introduction of the Course:06.06.2022

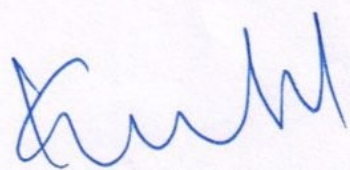
The timings are 3:30 PM to 5:30 PM from Monday to Friday

Time Table& Lesson plan

CLASS	DATE	TOPIC
1,2	06-06-2022	1. Declining Prices, Profits and Graphing Graph of a function max/min suits
3,4	07-06-2022	2. Price Data and Trendlines Data Fitting, Least squares
5,6	08-06-2022	3. Price Data for Two Markets and Linear Estimation Functions of 2 variables, Data Fitting in 2 variables
7,8	09-06-2022	4. Property Appraisal and Linear Estimation functions of several variables best fits without graphing
9,10	12-06-2022	5. Savings Plans and First-Order Finite Differences Finite Difference equations, Financial Modelling, Exact solution to difference equations
11,12	13-06-2022	6. Loans and First Order Finite Differences Finite Difference equations, Exact solution of a linear difference equation
13,14	14-06-2022	7. Cooling Model and Euler Finite Difference Method Physical Modelling, Differential equation as limit of difference equation, Closed form solution, Equilibrium
15,16	15-06-2022	8. Population Models and Exponential Functions Population Modeling, Differential equations, Closed-form solutions, Exponential growth

17,18	16-06-2022	9. Minimum cost of a display area and derivatives Optimization (max/min) constraint, max/min by differentiation
19,20	19-06-2022	9. Minimum cost of a display area and derivatives Optimization (max/min) constraint, max/min by differentiation
21,22	20-06-2022	10. Profit from 2 markets and partial derivatives Multivariate Optimization
23,24	21-06-2022	10. Profit from 2 markets and partial derivatives Multivariate Optimization
25,26	22-06-2022	11. Alcohol Breath Testing and Least Squares Data Fitting least squares, Critique of mathematical models
27,28	23-06-2022	12. Population Growth: Raleigh and Wake County Population models, Closed form solutions of differential equations logs
29,30	26-06-2022	12. Population Growth: Raleigh and Wake County Population models, Closed form solutions of differential equations logs


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CERTIFICATE COURSE ON COMPUTATIONAL MATHEMATICS WITH EXCEL

Date of Introduction of the Course: 06.06.2022

School of Computing **Registered Students Name List**

S.NO	REG.NO	NAME OF THE STUDENT
1	U14CS056	GOUTHAM KALYAN KUMAR .R
2	U14CS057	GOVIND KUMAR
3	U14CS058	HARI TEJA.G
4	U14CS059	HARISH.V
5	U14CS060	JASIMKHAN.J.
6	U14CS061	JENNIFER.S
7	U14CS062	JERIPOTHULA SURESH GOUD
8	U14CS063	JOHN DALTON .H
9	U14CS064	K. LAKSHMIKANTH REDDY
10	U14CS065	K. LAKSHMI NARAYANA REDDY
11	U14CS066	KARAN KUMAR CHETTRI
12	U14CS058	KARTHIKEYAN.J
13	U14CS067	KARTHICK.K
14	U14CS069	KARTHIKEYAN.J
15	U14CS071	KARTIK YADAV
16	U14CS072	KATKURI.KUMAR
17	U14CS073	KATTA DINESH KUMAR
18	U14CS074	KESHAVAPRIYA .S
19	U14CS075	KEVIN ARNOLD THAKUR
20	U14CS076	KILARI LAXMI SUDHA
21	U14CS077	KISHORE KUNAL
22	U14CS078	KODALI AKHIL
23	U14CS079	KOUSHIK SUBRAMANIAM.Y
24	U14CS080	KOVURI BALASUBHAKAR REDDY
25	U14CS081	KRISHNA SRIVASTAV.S.K

26	U14CS082	KRISHNANDAN YADAV
27	U14CS084	LAKKAMPALLY SHIVA KUMAR
28	U14CS085	LAKSHMI PRIYA.A
29	U14CS086	LOKESHWARAN.A.
30	U14CS088	MADDIPATI BHARAT
31	U15CS127	MUPPALLA SURENDRA
32	U15CS128	MURARI KUMAR CHAUDHARY
33	U15CS129	N SWAPNA RAAGA
34	U15CS130	NAGANNAGARI JAGADISH
35	U15CS133	NALLURI AKHIL BABU
36	U15CS134	NAMBURI VIJAY KUMAR
37	U15CS135	NARENDULA NIREESHA
38	U15CS136	NARESH K
39	U15CS138	NEELA SAI KUMAR
40	U15CS139	NIKHIL KUMAR
41	U15CS140	NIRANJAN S
42	U15CS141	NITIN SINGH
43	U15CS142	NUKALA BHODANANDA CHARAN
44	U15CS143	OLIVER S
45	U15CS144	OMPRAKASH YADAV
46	U15CS001	ABHIJEET KUMAR
47	U15CS002	ABHIJIT KUMAR GUPTA
48	U15CS003	ABHISHEK KUMAR SINGH
49	U15CS004	ALLU SAI SIVA PRIYANKA NAIDU
50	U15CS005	AMBIKE KUMAR SINGH
51	U15CS006	ANBUMANI S
52	U15CS007	ANJAR ALI
53	U15CS008	ANKAM MANJUNATH
54	U15CS009	ANNADI DHANUSH
55	U15CS011	ANUMOLU YESWANTH
56	U15CS012	ARAVAPALLI SIVA VINAYA
57	U15CS013	ARAVINDHAN K R
58	U15CS014	ARVIND KUMR YADAV
59	U15CS015	ARYAN SAHU
60	U15CS017	ASHISH RANJAN

C. Nambur

COURSE COORDINATOR

K. S. S. S.

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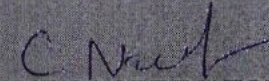
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CERTIFICATE OF PARTICIPATION

This certificate is presented to

HARISH. V

For actively participating in the value added course "Computational Mathematics with Excel"
Conducted by School of Computing, BIHER from 06.06.2022 to 26.06.2022.


COURSE COORDINATORS


HEAD OF THE DEPARTMENT


DIRECTOR

COURSE FEEDBACK FORM

Academic Year		2022								
Term		ODD								
Course Number										
Course Title		Computational Mathematics with Excel								
Number of Credits										
Type of Course	Regular		Elective		Add-on				✓	
I. Information on the Respondent: (Tick (✓) Appropriately)										
1.	Percentage of classes attended									
	0-20		20-40		40-60		60-80		80-100	✓
2.	Number of hours per week spent on the course (Other than lecture hours)									
	0-2		2-4		4-6	✓	6-8		8-10	
3.	Preparation for the course by the student:									
(i)	Have done part of this course earlier							NO		
(ii)	Has adequate prior exposure to the prerequisites							No		
(iii)	Had to pickup relevant additional topics through concurrent study							Yes		
(iv)	Have no exposure to the background material							NO		
4.	The expectations for taking the course by the student are:									
(a)	Enhance by skill base in the area of specializations							Yes		
(b)	Get exposed to a relevant subject							Yes		
(c)	Curiosity							yes		
(d)	Better Employment Opportunity							yes		
(e)	Complete Course requirements							yes		
(f)	To Improve CGPA									
About the Instructor: Information on the Respondent: (Tick (✓) Appropriately)										
		A		B		C		D		E
1.	Pace of the Teaching/lecture	✓								
2.	Comment of the Subject	✓								
3.	Clarity of expression	✓								
4.	Level of preparation			✓						
5.	Level of interaction	✓								
6.	Accessibility outside the class			✓						
7.	Others (please specify)									
A: Excellent		B: Very Good		C: Good		D: Satisfactory		E: Poor		


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Academic Year		2022							
Term		ODD							
Course Number									
Course Title		Computational Mathematics with Excel							
Number of Credits									
Type of Course	Regular		Elective		Add-on				✓
I. Information on the Respondent: (Tick (✓) Appropriately)									
1. Percentage of classes attended									
0-20		20-40		40-60		60-80		80-100	✓
2. Number of hours per week spent on the course (Other than lecture hours)									
0-2		2-4		4-6	✓	6-8		8-10	
3. Preparation for the course by the student:									
(i)	Have done part of this course earlier							No	
(ii)	Has adequate prior exposure to the prerequisites							NO	
(iii)	Had to pickup relevant additional topics through concurrent study							Yes	
(iv)	Have no exposure to the background material							NO	
4. The expectations for taking the course by the student are:									
(a)	Enhance by skill base in the area of specializations							Yes	
(b)	Get exposed to a relevant subject							Yes	
(c)	Curiosity							Yes	
(d)	Better Employment Opportunity							Yes	
(e)	Complete Course requirements							Yes	
(f)	To Improve CGPA							Yes	
About the Instructor: Information on the Respondent: (Tick (✓) Appropriately)									
		A	B	C	D	E			
1.	Pace of the Teaching/lecture	✓							
2.	Comment of the Subject	✓							
3.	Clarity of expression	✓							
4.	Level of preparation		✓						
5.	Level of interaction	✓							
6.	Accessibility outside the class		✓						
7.	Others (please specify)								
A: Excellent		B: Very Good		C: Good		D: Satisfactory		E: Poor	


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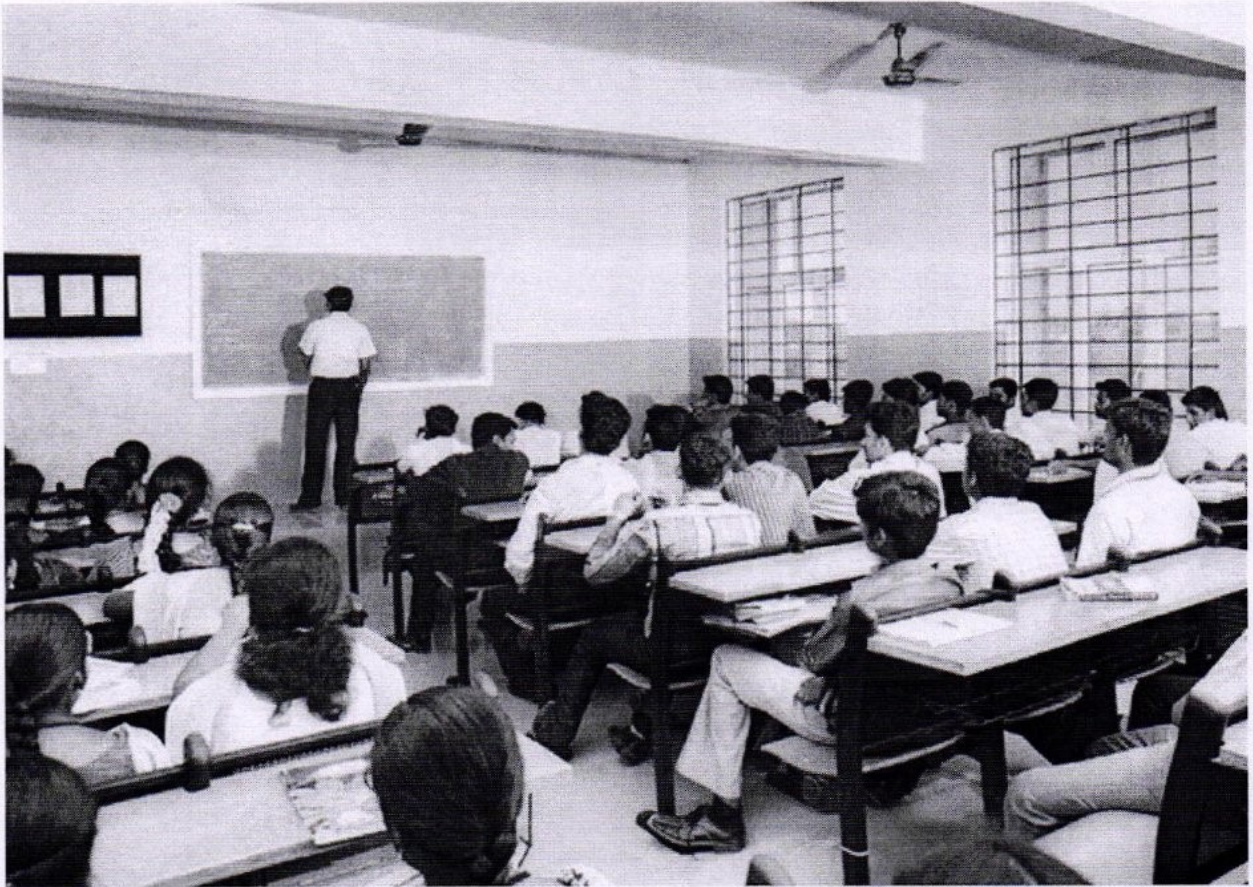


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CERTIFICATE COURSE ON COMPUTATIONAL MATHEMATICS WITH EXCEL



Chalini

COURSE COORDINATOR

[Handwritten Signature]

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