Bharath
INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as deemed to be university under section 3 of UGC Act 1956, vide notification No.F.9-5/2000-U.3)

SCHOOL OF BASIC SCIENCES

Date : 25.11.2019

CIRCULAR

Sub: Organising Value added Course: Nanotechnology, Science and Applications - reg.,

With reference to the above mentioned subject, we bring it to your notice that School of Basic Sciences, Bharath Institute of Higher Education & Research is organising **Value added course "Nanotechnology, Science and Applications".** The syllabus and registration form is enclosed below. The candidates those who are interested to join must fill the registration form and submit to the Course Coordinator Dr. P. Paulraj, Department of Chemistry, Applications on or before 11.12.2019. The Registration form received after the mentioned date shall not be entertained under any circumstances.

Dean, Faculty of Arts & Sciences
Bharath Institute of Higher Education & Research
(Declared as Deemed to be University U/S 3 of UGC Act, 1956)
Chennai-600 073. INDIA

Dean- Arts & Science

Encl: A copy of Syllabus & Registration form

Copy To:

1.All HODs

2.Office File/ Notice Board

3.Course Coordinator

Bharath Institute of Higher Education & Research
School of Basic Sciences
Course TimeTable

Value Added Course: Nanotechnology, Science and Applications **Course Duration:30 Hrs**

S.No	Date	Time	Hour
1	19/12/18	10.30-11.30a.m	1
2	19/12/19	2.00-3.00p.m	1
3	19/12/20	2.00-3.00p.m	1
4	19/12/21	10.30-12.30p.m	2
5	19/12/23	2.00-4.00p.m	2
6	19/12/24	2.00-4.00p.m	2
7	19/12/26	2.00-4.00p.m	2
8	19/12/27	2.00-4.00p.m	2
9	19/12/28	10.30-11.30p.m	1
10	19/12/30	2.00-4.00p.m	2
11	19/12/31	2.00-4.00p.m	2
12	20/01/02	2.00-4.00p.m	2
13	20/01/03	2.00-4.00p.m	2
14	20/01/04	10.30-12.30p.m	2
15	20/01/06	2.00-4.00p.m	2
16	20/01/07	2.00-4.00p.m	2
17	20/01/08	2.00-4.00p.m	2

Bharath Institute of Higher Education & Research

School of Basic Sciences

Students Registration List

Value Added Course: Nanotechnology, Science and Applications

S.NO	REG.N0	NAME OF THE CANDIDATE	DEPARTMENT
1	U19CI001	SHAIK JALAUDDIN	CHEMISTRY
2	U19CI002	KESHAVINODHINI D	CHEMISTRY
3	U19CI003	JAYASHREE N	CHEMISTRY
4	U19CI004	PAVITHRA R	CHEMISTRY
5	U19CI005	SUBASHINI N	CHEMISTRY
6	U19CI006	VINOTHINI S	CHEMISTRY
7	U19CI007	YOOKESH V S	CHEMISTRY
8	U19CI008	KARTHIK S	CHEMISTRY
9	U19CI009	RAJESHWARI A	CHEMISTRY
10	U19CI010	PRAVEEN KUMAR M	CHEMISTRY
11	U19CI011	DEVENDIRAN M	CHEMISTRY
12	U19CI012	RANJITH KUMAR M	CHEMISTRY
13	U19CI013	ASHWIN R	CHEMISTRY
14	U19CI014	SARAVANAN D	CHEMISTRY
15	U19CI015	UDHAYAKUMAR T	CHEMISTRY
16	U19CI016	DEEPAK M	CHEMISTRY
17	U19CI017	PANDI M	CHEMISTRY
18	U19CI018	RAGHUL C	CHEMISTRY
19	U19CI019	KARTHIKEYAN B	CHEMISTRY
20	U19CI020	NAVEENKUMAR N	CHEMISTRY
21	U19CI021	SELVAN R	CHEMISTRY
22	U19CI022	GAYATHRI J	CHEMISTRY
23	U19CI023	MOHAMMEDALI R	CHEMISTRY
24	U19CI024	KALAIVANI V	CHEMISTRY
25	U19CI025	VIKRAM M	CHEMISTRY
26	U19CI026	YUVARAJ S	CHEMISTRY
27	U19CI027	SINDHU R	CHEMISTRY
28	U19CI028	SANTHOSH R	CHEMISTRY
29	U19CI029	BALAVIGNESH R	CHEMISTRY
30	U19CI030	VIKRAMAN S	CHEMISTRY
31	U19CI031	TAMILARASAN M	CHEMISTRY
32	U19CI032	AKILA A	CHEMISTRY
33	U19CI033	LINSAN RAJ A	CHEMISTRY
34	U19PS001	RAJESH A	PHYSICS
35	U19PS002	NISHALINI R	PHYSICS
36	U19PS003	RAJA S	PHYSICS
37	U19PS004	ANANDU S	PHYSICS
38	U19PS005	SAJITHA M	PHYSICS

39	U19PS006	KEERTHIKA P	PHYSICS
40	U19PS007	THARUNPRASATH D	PHYSICS
41	U19PS008	NISHANTHI R	PHYSICS
42	U19PS009	MATHANKUMAR M	PHYSICS
43	U19PS010	ARAVIND A	PHYSICS
44	U19PS011	SHANMATHI M	PHYSICS
45	U19PS012	RANGARAMANUJAM N S	PHYSICS

Bharath

INSTITUTE OF HIGHER EDUCATION AND RESEARCH

School of Basic Sciences

83/3, Agaram Main Road, Thiruvancherry, Chennai-600 126, Tamilnadu, India.

Certificate of participation

This is to certify that

SARAVANAN. D

has participated in the value added course: **Nanotechnology, Science and Applications**, a unique and special program held at School of Basic Sciences, BIHER from December 18, 2019 to January 08, 2020.

Dr. P. Paulraj
Course Co-ordinator

Dr. G. Padmapriya
Convener

Dr. A. Muthukumaravel
Dean- Arts & Science

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SCHOOL OF BASIC SCIENCES

Resource Person Details
Dr. E. Suundaravadivel
Asst. Professor
Department of Chemistry,
SRM Institute of Science and Technology,
Kattankulathur Campus, Chennai.

Bharath Institute of Higher Education & Research
School of Basic Sciences
Lesson Plan

Value Added Course: Nanotechnology, Science and Applications **Course Duration:30 Hrs**

S.No	Date	Topic	Time	Hour
1	19/12/18	Basic concepts of Nanoscience and Nanotechnology	10.30-11.30a.m	1
2	19/12/19	Synthesis of Nanomaterials – topdown approaches	2.00-3.00p.m	1
3	19/12/20	Synthesis of Nanomaterials – Bottom-up	2.00-3.00p.m	1
4	19/12/21	Classification of Nanomaterials	10.30-12.30p.m	2
5	19/12/23	Properties of Nanomaterials	2.00-4.00p.m	2
6	19/12/24	Application of Nanomaterials.	2.00-4.00p.m	2
7	19/12/26	Characterization of nanomaterials	2.00-4.00p.m	2
8	19/12/27	Distinction between molecules, nanoparticles and bulk materials	2.00-4.00p.m	2
9	19/12/28	Size-dependent properties. nanoparticles: nano cluster, nano rod, nanotube (CNT) and nanowire.	10.30-11.30p.m	1
10	19/12/30	Types of Carbon nanotubes and its properties	2.00-4.00p.m	2
11	19/12/31	Laser ablation techniques of nano-material synthesis	2.00-4.00p.m	2
12	20/01/02	Chemical Vapour Deposition (CVD) method of synthesis.	2.00-4.00p.m	2
13	20/01/03	Arc discharge, Gas-phase synthesis	2.00-4.00p.m	2
14	20/01/04	Chemical Synthesis of nanoparticles	10.30-12.30p.m	2
15	20/01/06	Precipitation and co-precipitation method	2.00-4.00p.m	2
16	20/01/07	Sol-gel method, solvothermal	2.00-4.00p.m	2
17	20/01/08	Hydrothermal method	2.00-4.00p.m	2

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SCHOOL OF BASIC SCIENCES

Value Added Course

Nanotechnology, Science and Applications

Syllabus

1. Basic concepts of Nanoscience and Nanotechnology
2. Synthesis of Nanomaterials – topdown approaches
3. Synthesis of Nanomaterials– Bottom-up
4. Classification of Nanomaterials
5. Properties of Nanomaterials
6. Application of Nanomaterials.
7. Characterization of nanomaterials
8. Distinction between molecules, nanoparticles and bulk materials
9. Size-dependent properties. nanoparticles: nano cluster, nano rod, nanotube(CNT) and nanowire.
10. Types of Carbon nanotubes and its properties
11. Laser ablation techniques of nano-material synthesis
12. Chemical Vapour Deposition(CVD) method of synthesis.
13. Arc discharge, Gas-phase synthesis
14. Chemical Synthesis of nanoparticles
15. Precipitation and co-precipitation method
16. Sol-gel method, solvothermal
17. Hydrothermal method

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SCHOOL OF BASIC SCIENCES

Registration Form

Value Added Course

Date: 9/12/2019

Name : SARAVANAN 'D

Reg.No. : 019CI014

Date of Birth : 17.04.2001

Gender : MALE

Department : CHEMISTRY

Year : 2019

Contact No. : 9424615231

Email ID : Saravanan.2019@gmail.com

Course Applied For : Value added course Nanotechnology Science and Application

Signature

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Course Feedback form

Value Added Course

Date: 9 / 12 / 2019

Course Title:Nanotechnology, Science and Applications

Name: SARAVANAN.D

Reg.No: U19CI014

Department: Chemistry

S.No	Particulars	1	2	3	4	5
	(1. Very Unsatisfied 2. Unsatisfied 3. Neutral 4. Satisfied 5. Very Satisfied)					
1.	Objectives of the course clear to you				✓	
2.	Course contents met with your expectations			✓		
3.	Lecture sequence was well planned					✓
4.	Lectures were clear and easy to understand				✓	
5.	Teaching aids were effective					✓
6.	Instructors encourage interaction and were helpful				✓	
7.	The level of the course				✓	
	(1. Very poor 2. Poor 3. Average 4. Good 5. Excellent)					
8.	Overall rating of the course:	1	2	3	4	5

Please give Suggestion for the improvement of the course:

Signature