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, Ministry of Human Resource Development, Govt. of India, dated 4th July 2002)
BHARATH INSTITUTE OF SCIENCE AND TECHNOLOGY
DEPARTMENT OF AERONAUTICAL ENGINEERING
Website : www.bharathuniv.ac.in

Accredited by NAAC
NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

Dr. M.Sundararaj M.E., Ph.D
Head

28/02/2020

F.No.Aero/Events-1.1/Value Added Course/2020

CIRCULAR

Department of Aeronautical Engineering is organising a Value Added Course on "Lighter Than Air Systems" to be delivered by the eminent Industry expert and speaker, **Mr. M. Ramkumar, Scientist ADA, Bangalore** on **02/03/2020** for the students of B.Tech (Aeronautical & Aerospace Engineering). All the students are hereby instructed to be available for the said course.

HOD-Aero

Department of Aero... gineering
Bharath Institute of Higher Education & Research
(Declared as Deemed to be University u/s 3 of UGC Act, 1956)
Selaiyur, Chennai-600 073. INDIA

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, Ministry of Human Resource Development, Govt. of India, dated 4th July 2002)
BHARATH INSTITUTE OF SCIENCE AND TECHNOLOGY
DEPARTMENT OF AERONAUTICAL ENGINEERING
Website : www.bharathuniv.ac.in

Department of Aeronautical Engineering

Value Added Course

Lighter Than Air Systems

Objective :

To discuss in general the history of LTA systems and their configurations.
To understand the principles of aerostatics and their application in designing the airships and aerostats.
To know about the current challenges and future developments of lighter than airsystems.

Course Co-ordinator: Mr. M. Karthik

COURSE LAYOUT

SNO	Date	Course Content	Duration	Instructor
1	02/03/2020 (AN)	Introduction to LTA systems, LTA gases, Types, Applications of Airships and their Components	3 Hours	Mr.M.Ramkumar, Scientist ADA, Bangalore
2	03/03/2020 (FN)	Tethered Aerostat Systems, Historical developments of LTA systems	3 Hours	Mr.M.Ramkumar, Scientist ADA, Bangalore
3	03/03/2020 (AN)	Overview of PADD, Remotely Controlled Airships, Autonomous Airships, Biomimetric Airships	3 Hours	Mr.M.Ramkumar, Scientist ADA, Bangalore
4	04/03/2020 (FN)	Introduction to Buoyancy, Basics Concepts of Aerostatics, Ballasting, weight-off and fuel weight recovery.	3 Hours	Mr.M.Ramkumar, Scientist ADA, Bangalore
5	04/03/2020 (AN)	Net Static Lift Estimations for Lighter than Air systems	3 Hours	Mr.M.Ramkumar, Scientist ADA, Bangalore
6	09/03/2020 (FN)	Effect of Super pressure, Atmospheric Temperature, Relative Humitity, Change in lift in gas purity, Change in lifting gas volume, Flight to lower ground elevation	3 Hours	Mr.M.Ramkumar, Scientist ADA, Bangalore
7	09/03/2020 (AN)	Pressure height calculations,pressure height for other LTA vehicles.	3 Hours	Mr.M.Ramkumar, Scientist ADA, Bangalore
8	10/03/2020 (FN)	Envelope materials	3 Hours	Mr.M.Ramkumar, Scientist ADA, Bangalore

Dept. of Aeronautical Engg.
Chennai-73.

9	10/03/2020 (AN)	Propulsion System for LTA systems	3 Hours	Mr.M.Ramkumar, Scientist ADA, Bangalore
10	11/03/2020 (FN)	Overview of Airship design methodology, Validation of Airship design methodology	3 Hours	Mr.M.Ramkumar, Scientist ADA, Bangalore

BOOKS AND REFERENCES	
1	Pant, R. S., Course Material for Design and Development of LTA systems, Curriculum Development Program, IIT Bombay, 2010.
2	Taylor, J. A., Principles of Aerostatics, The Theory of Lighter-Than-Air Aircraft,ISBN13:978-1-49481-053-5, 2014.
3	Khoury, G., Ed., Airship Technology, 2nd Edition, Cambridge Aerospace Series, Cambridge University Press, 2012.
4	Carichner, G. E., and Nicolai, L. M., Fundamentals of Aircraft and Airship Design, Volume 2 – Airship Design and Case Studies, AIAA Education Series, 2013.

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, Ministry of Human Resource Development, Govt. of India, dated 4th July 2002)
BHARATH INSTITUTE OF SCIENCE AND TECHNOLOGY
DEPARTMENT OF AERONAUTICAL ENGINEERING
Website : www.bharathuniv.ac.in

Department of Aeronautical Engineering

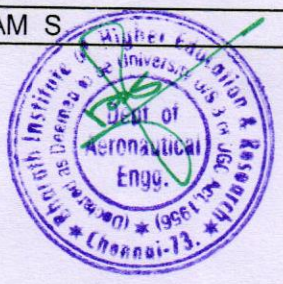
Value Added Course

Course on Lighter Than Air Systems

List of students Registered on 02/03/2020

SNO	Reg NO	Name of the Student
1	U16AE001	SARKAR ABHIJIT
2	U16AE002	MOHAMMED FAHATH M S
3	U16AE003	ANTANIESKEMIN Y
4	U16AE004	KEERTHIVASAN J
5	U16AE005	CHARANKUMAR A
6	U16AE006	VIGNESH T
7	U16AE007	BOYANAPALLE SRINIVAS ANSHU BAB
8	U16AE008	SEELAM DURGA LAKSHMI PRIYANKA
9	U16AE009	LOKESH B
10	U16AE010	KANDULA THRINATH
11	U16AE011	KODAVALURU SAI BHAVANA
12	U16AE012	UJJWAL KUMAR SINGH
13	U16AE013	SARATH KUMAR S
14	U16AE014	PRAKASH GUPTA
15	U16AE015	MOHANISH DHRUW
16	U16AE016	KAVIBHARATHI T
17	U16AE017	HARIHARAN K
18	U16AE018	K S GANESH
19	U16AE019	PUNITHAN A
20	U16AE020	JANARTHANAN K
21	U16AE021	MANDALA HARI
22	U16AE022	VIGNESH A
23	U16AE023	NATARAJAN T M
24	U16AE024	SANTHOSH KUMAR SAHU
25	U16AE025	VAGGALA MAMATHA SRI
26	U16AE026	KESAVARAJU K V
27	U16AE027	GOLLA GOPAL
28	U16AE028	MUHUNTHANI B
29	U16AE029	GUDIPATI SIVAKUMAR
30	U16AE030	MONIKA VEMAGIRI
31	U16AE031	D VINOD RAO
32	U16AE032	ARUN R
33	U16AE033	DEKKA SAI VENKATA SURYA AJAY KUMAR
34	U16AE034	SHAKEEL AKTHAR M

35	U16AE035	ADAPALA ANIL KUMAR
36	U16AE036	GHANTASALA PARASU RAJU
37	U16AE037	K GAMANA
38	U16AE038	GORIPARTHI PRATHYUSHA
39	U16AE039	MULAKA BHAVANA
40	U16AE041	LAKSHMI NARASIMHAN V
41	U16AE042	ADIGARLA BHANU PRASAD
42	U16AE043	SRI HARSHA VARMA MANTHENA
43	U16AE044	GOGULAMANDA VEERA SWAMY RAJIV
44	U16AE045	HURASU VENUH
45	U16AE046	PRABAKARAN P
46	U16AE047	ZAHID AYOOB
47	U16AE048	PASUPULETI PUJITHA
48	U16AE501	AKASH V
49	U16AE502	RIYO PAULDUVIN M
50	U16AE503	RAJAGOPALAN NARAYANAN
51	U16AE504	MOHAMMED ARSHAD SAMEER F
52	U16AE702	GANJI GOWTHAM
53	U16AE703	GADUPUTI BALAJI
54	U16AE704	MEDIDARAJU VIGNENKUMAR RAJU
55	U16AS001	SARATH KUMAR S
56	U16AS002	KESAVARAJU K V
57	U16AS003	GUDIPATI SIVAKUMAR
58	U16AS004	PRITHIVIRAJAN S M
59	U16AS005	PRASANNA PRAKASH J
60	U16AS006	VISHAVAK P S
61	U16AS007	RUMADE SHUBHAM NARAYAN
62	U16AS008	GONDAL PRANAY GOPAL
63	U16AS009	PUNITHAN A
64	U16AS010	ASHLIN KUMAR
65	U16AS501	KURAL ARASU L
66	U16AS502	DONTHA ADITYA
67	U17AE011	MANJUNADH ESHWAR P
68	U17AE012	PEREZHIL MUGUNDAN D
69	U17AE013	CHITTI SAI SRAVAN KUMAR
70	U17AE014	VALLALA MUKESH GOUD
71	U17AS016	GUNJA LALITHA MAHESWARI
72	U17AS017	WALTER JESUDOSS DEVARAM S



Bharath

INSTITUTE OF HIGHER EDUCATION AND RESEARCH

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

Department of Aeronautical Engineering

Certificate of Participation

This acknowledges that

DEKKA SAI VENKATA SURYA AJAY KUMAR
U16AE033

Has undertaken 30 hours course on **"LIGHTER THAN AIR SYSTEMS"** Organized by DEPARTMENT OF AERONAUTICAL ENGINEERING, BIHER FROM 02.03.2020 TO 11.03.2020.

MR. M. KARTHIK, PROGRAM COORDINATOR

HOD/AERO

Participant Feedback Form

(On course completion)

Date 11/03/2020

Course Lighter than Air Systems

Student Name (optional) K.S. Ganesh

Student ID (optional) U16AE018

a) Helpful and knowledgeable staff:

☐ Very satisfied ☑ Satisfied ☐ Somewhat satisfied ☐ Not satisfied

b) Staff friendliness:

☐ Very satisfied ☑ Satisfied ☐ Somewhat satisfied ☐ Not satisfied

C) Ease of registration:

☑ Very satisfied ☐ Satisfied ☐ Somewhat satisfied ☐ Not satisfied

2. Is there anything we can improve with our registration process?

NO Comment

B. The Training Facility

3. How satisfied were you with the training facility on the follow

a) Cleanliness of facility:

☑ Very satisfied ☐ Satisfied ☐ Somewhat satisfied ☐ Not satisfied

b) Comfort of training room:

☑ Very satisfied ☐ Satisfied ☐ Somewhat satisfied ☐ Not satisfied

4. Is there anything we can improve with any of the above?

NO Comment