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

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

28/08/2019

F.No.Aero/Events-1.1/Value Added Course/2019

CIRCULAR

Department of Aeronautical Engineering is organising a Value Added Course on 'Introduction to Launch Vehicle Analysis and Design' to be delivered by the eminent Industry expert and speaker, **Mr. Daniel Peace, Semilac Labs, Bangalore** on **30/08/2019** 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 Aeronautical Engineering
Bharath Institute of Higher Education & Research
(Declared as Deemed to be University U/S 3 of UGC Act, 1956)
Selaiyur, Chennai-600 073. INDIA

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Department of Aeronautical Engineering

Value Added Course

Introduction to Launch Vehicle Analysis and Design

Objective :
The objective of the course is to to introduce fundamental principles governing ascent mission trajectory design including the configuration design of launch vehicles.
Course Co-ordinator: Mr.R.Manikandan

COURSE LAYOUT

SNO	Date	Course Content	Duration	Instructor
1	30/08/2019 (FN)	Introduction about Launch Vehicles, Course Plan, Ascent Mission Basics.	3 Hours	Mr. Daniel Peace, Semilac Labs, Bangalore
2	02/09/2019 (FN)	Curvilinear Motion Concept, Constant Pitch Rate, Constant Velocity, Constant (T/m) solution	3 Hours	Mr. Daniel Peace, Semilac Labs, Bangalore
3	02/09/2019 (AN)	Ascent Mission Design, Multi-stage Rocket Concept	3 Hours	Mr. Daniel Peace, Semilac Labs, Bangalore
4	03/09/2019 (FN)	Idealized Performance, Trajectory Under Gravity, Impact of Gravity, Impact of Drag	3 Hours	Mr. Daniel Peace, Semilac Labs, Bangalore
5	03/09/2019 (AN)	Optimal Staging Concept, Lagrange's Solution, Approximate Staging, Concept of Rocket Variant	3 Hours	Mr. Daniel Peace, Semilac Labs, Bangalore
6	04/09/2019 (FN)	Variant Design Solution, Parallel Staging Concept, Relativistic and SSTO Rocket Concepts	3 Hours	Mr. Daniel Peace, Semilac Labs, Bangalore
7	04/09/2019 (AN)	Jet Damping and Spin in Rockets and Missiles	3 Hours	Mr. Daniel Peace, Semilac Labs, Bangalore
8	10/09/2019 (FN)	Air-breathing Rockets and Ballistic Missiles,Basics of Rocket Launching	3 Hours	Mr. Daniel Peace, Semilac Labs, Bangalore
9	10/09/2019 (AN)	Fundamentals of Re-entry, Typical Re-entry Techniques	3 Hours	Mr. Daniel Peace, Semilac Labs, Bangalore
10	11/09/2019 (FN)	Multi-stage Design Basics, Multi-stage Formulation	3 Hours	Mr. Daniel Peace, Semilac Labs, Bangalore

BOOKS AND REFERENCES	
1	Thompson, 'Introduction to Space Dynamics', Dover Publications, New York, 1986.
2	Hale, 'Introduction to Space Flight', Prentice Hall, 1994
3	Wiesel, 'Spaceflight Dynamics', McGraw-Hill, 1997

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Accredited by NAAC

Department of Aeronautical Engineering

Value Added Course

Course on Introduction to Launch Vehicle Analysis and Design

List of students Registered on 30/08/2019

SNO	Reg NO	Name of the Student
1	U16AE001	SARKAR ABHIJIT
2	U16AE002	MOHAMMED FAHATH M S
3	U16AE004	KEERTHIVASAN J
4	U16AE005	CHARANKUMAR A
5	U16AE006	VIGNESH T
6	U16AE007	BOYANAPALLE SRINIVAS ANSHU BAB
7	U16AE008	SEELAM DURGA LAKSHMI PRIYANKA
8	U16AE009	LOKESH B
9	U16AE010	KANDULA THRINATH
10	U16AE011	KODAVALURU SAI BHAVANA
11	U16AE012	UJJWAL KUMAR SINGH
12	U16AE013	SARATH KUMAR S
13	U16AE014	PRAKASH GUPTA
14	U16AE015	MOHANISH DHRUW
15	U16AE016	KAVIBHARATHI T
16	U16AE017	HARIHARAN K
17	U16AE018	K S GANESH
18	U16AE019	PUNITHAN A
19	U16AE021	MANDALA HARI
20	U16AE022	VIGNESH A
21	U16AE023	NATARAJAN T M
22	U16AE024	SANTHOSH KUMAR SAHU
23	U16AE025	VAGGALA MAMATHA SRI
24	U16AE026	KESAVARAJU K V
25	U16AE027	GOLLA GOPAL
26	U16AE028	MUHUNTHANI B
27	U16AE029	GUDIPATI SIVAKUMAR
28	U16AE030	MONIKA VEMAGIRI
29	U16AE031	D VINOD RAO
30	U16AE032	ARUN R
31	U16AE033	DEKKA SAI VENKATA SURYA AJAY KUMAR
32	U16AE034	SHAKEEL AKTHAR M
33	U16AE035	ADAPALA ANIL KUMAR
34	U16AE036	GHANTASALA PARASU RAJU

35	U16AE037	K GAMANA
36	U16AE038	GORIPARTHI PRATHYUSHA
37	U16AE039	MULAKA BHAVANA
38	U16AE040	THULLIMALLI RATNA KISHORE
39	U16AE041	LAKSHMI NARASIMHAN V
40	U16AE042	ADIGARLA BHANU PRASAD
41	U16AE043	SRI HARSHA VARMA MANTHENA
42	U16AE044	GOGULAMANDA VEERA SWAMY RAJIV
43	U16AE045	HURASU VENUH
44	U16AE046	PRABAKARAN P
45	U16AE047	ZAHID AYOOB
46	U16AE048	PASUPULETI PUJITHA
47	U16AE501	AKASH V
48	U16AE502	RIYO PAULDUVIN M
49	U16AE503	RAJAGOPALAN NARAYANAN
50	U16AE504	MOHAMMED ARSHAD SAMEER F
51	U16AE701	SHAIK GAFOOR
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	U16AS005	PRASANNA PRAKASH J
59	U16AS006	VISHAVAK P S
60	U16AS007	RUMADE SHUBHAM NARAYAN
61	U16AS008	GONDAL PRANAY GOPAL
62	U16AS009	PUNITHAN A
63	U16AS010	ASHLIN KUMAR
64	U16AS501	KURAL ARASU L
65	U16AS502	DONTHA ADITYA

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Department of Aeronautical Engineering

Certificate of Participation

This acknowledges that

K S GANESH
U16AE018

Has undertaken 30 hours course on **"INTRODUCTION TO LAUNCH VEHICLE ANALYSIS AND DESIGN"** Organized by DEPARTMENT OF AERONAUTICAL ENGINEERING, BIHER FROM 30.08.2019 TO 11.09.2019.

MR. M. RAMAKRISHNA, PROGRAM COORDINATOR

HOD/AERO

Participant Feedback Form

(On course completion)

Date 11/09/2019

Course Introduction to launch Vehicle Analysis & Design.

Student Name (optional) ARUN R

Student ID (optional) U16AE032

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 comments

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?

Study material should be given.