



**ADHIYAMAAN COLLEGE OF ENGINEERING,
(AUTONOMOUS)
Affiliated to Anna University, Chennai
DR.M.G.R.NAGAR,HOSUR-635130**

BOARD OF STUDIES IN FACULTY OF AERONAUTICAL ENGINEERING

MINUTES OF THE 15th MEETING

DATE: 08/11/2017

The 15th Board of Studies Meeting of Aeronautical Engineering held on 08/11/2017 at 11:00 AM.

MEMBERS PRESENT

S.NO	Name	Category
1.	Dr.J.Arivudainambi	Chairman
2.	Dr.K.M.Paramasivam	University Nominee
3.	Dr.Sarat Kumar Maharana	Academic Council Nominee
4.	Dr.V.Senthilkumar	Academic Council Nominee
5.	Dr.K.T.Varughese	Industrial Expert
6.	Mr.R.Ashok Mitran	Representative From Alumini
7.	Dr.Channankiah	Inter Disciplinary Expert
8.	Mr.P.Muthusamy	Faculty Representative
9.	Mr.T.Anand	Faculty Representative

- 15.1 To consider the minutes of 14th meeting of the Board of Studies in Aeronautical Engineering held on 18/04/2017.

RESOLVED that the minutes of 14th Board of Studies Meeting in Aeronautical Engineering have been considered.

- 15.2 To consider the Curriculum & Syllabi of **IV Semester** B.E Aeronautical Engineering under **Regulation 2015 (CBCS)** for the batch of students admitted in the year of 2016-2017 (**Annexure I**)

RESOLVED that the Curriculum & Syllabi of **IV Semester** B.E Aeronautical Engineering under **Regulation 2015 (CBCS)** for the batch of students admitted in the year of 2016-2017 be approved. (**Annexure I**)

- 15.3 To consider the Syllabi of **VI Semester** B.E Aeronautical Engineering under Regulation 2015 (CBCS) for the batch of students admitted in the year of 2015-2016 (**Annexure II**)

RESOLVED that the Syllabi of **VI Semester** B.E Aeronautical Engineering under Regulation 2015 (CBCS) for the batch of students admitted in the year of 2015-2016 be approved. (**Annexure II**)

15.4 To consider the Syllabi of **VIII Semester** B.E, Aeronautical Engineering under Regulation 2011 for the batch of students admitted in the year of 2014-2015.
(**Annexure III**)

RESOLVED that the Syllabi of **VII Semester** B.E, Aeronautical Engineering under Regulation 2011 for the batch of students admitted in the year of 2014-2015 be approved. (**Annexure III**)

DATE: 08/11/2017



**CHAIRMAN
BOARD OF STUDIES**

**Chairman
Board of Studies**

**Faculty of Aeronautical Engineering
ADHIYAMAAN COLLEGE OF ENGINEERING (Autonomous)
Hosur - 635 109, Tamil Nadu.**



ADHIYAMAAN COLLEGE OF ENGINEERING, (AUTONOMOUS)

Affiliated to Anna University, Chennai

Dr.M.G.R.Nagar, Hosur-635130

15th BOARD OF STUDIES

FACULTY OF AERONAUTICAL ENGINEERING- 15th MEETING ON 18/11/2017 @ 11:00 AM

15.5 New courses introduced/newly added topics in corresponding courses in the year of 2017

Sl.No	Semester	Subject Code	Subject Name	Remarks
				The existing syllabus has been entirely reframed with the following unit modules
1.	IV	415AEE08	Introduction To Space Technology	<ol style="list-style-type: none"> 1. Orbital Mechanics 2. Orbits In Three Dimensions 3. Orbital Maneuver 4. Rocket Motion In Free Space And Gravitational Field 5. Ballistic Missile Trajectories
2.	IV	415AET02	Aerodynamics-1	<p>NEWLY ADDED TOPICS</p> <p>UNIT 4 ; Airfoil and wing theory</p> <ol style="list-style-type: none"> 1. Vortex line 2. Horse shoe vortex 3. Biot and savart law 4. Lifting line theory and its limitation 5. Joukowski 6. Karman - Trefftz
3.	IV	415AEE09	Experimental Aerodynamic	<ol style="list-style-type: none"> 1. Wind Tunnel Testing 2. Experiments in Subsonic Wind Tunnel 3. Experiment in high Speed Tunnel 4. Measurement Techniques 5. Aircraft Structural Problems
4.	IV	415AEP10	CATIA V5 R 21 Laboratory	<ol style="list-style-type: none"> 1. Scaling,rotation,translation,editing,dimensioning-Typical CAD command Structure 2. Wire Frame Modeling-Surface modeling 3. Solid Modeling 4. Advanced modeling 5. CFD/FEM Fundamentals 6. Part Design of an Aircraft Components 7. Tool Design of an Aircraft Components 8. Surface Design of Aircraft Components
5.	IV	415AEP11	Production Technology Laboratory	<ol style="list-style-type: none"> 1. Lathe 2. Shaper and Slotter 3. Drilling 4. Milling 5. Grinding

6.	VI	615AET02	Heat Transfer	<p>NEWLY ADDED TOPICS</p> <p>UNIT 3; Radiative Heat Transfer</p> <ol style="list-style-type: none"> 1. Introduction to physical mechanism 2. Radiation properties 3. Radiation shape factors 4. Heat exchange between non-black bodies 5. Radiation shields
7.	VI	615AEE08	Boundary Layer Theory	<ol style="list-style-type: none"> 1. Navigation 2. Guidance 3. Aircraft Controls 4. Control techniques of Rockets And Missiles 5. Control Of spacecraft
8.	VI	615MEO01	Applied Hydraulics and pneumatics	<ol style="list-style-type: none"> 1. Fluid Power Principles And Fundamentals 2. Hydraulic System And Components 3. Control Components, Accessories Of Hydraulic system 4. Pneumatic Systems And Components 5. Hydraulic And Pneumatic Circuits and Troubleshooting
9.	VI	615AEE12	Structural Dynamics	<ol style="list-style-type: none"> 1. Force deflection properties of structures 2. Principles of dynamics 3. Natural modes of vibration 4. Energy methods 5. Approximate methods
10.	VI	615AEP10	Aircraft interior design Laboratory	<ol style="list-style-type: none"> 1. aircraft sitting designing arrangement (general class)(2d) 2. aircraft sitting designing arrangement (business class)(2d) 3. Aircraft single aisle design(2d) 4. Aircraft twin aisle design(2d) 5. Aircraft seat design(3d business class) 6. Aircraft seat design(3d first class) 7. Design of laptop tray sizing of seats and civil aircraft 8. Design of window for civil aircraft 9. Design of wind shield for fighter aircraft 10. Design of wind shield for passenger aircraft
11.	VIII	811AEE43	Structural Dynamics	<p>NEWLY ADDED TOPICS</p> <p>UNIT 2</p> <ol style="list-style-type: none"> 1. Time domain analysis 2. Finite difference method 3. Frequency domain analysis 4. Basic methodology 5. Dynamic response function
12	VIII	811AEE04	Entrepreneurship development, management And IPR	<ol style="list-style-type: none"> 1. introduction of entrepreneurship 2. Entrepreneurial development agencies 3. Project management 4. Introduction to intellectual priority 5. Patent rights
13	VIII	811AEE06	Human Values And Professional Ethics	<ol style="list-style-type: none"> 1. Human values 2. Engineering ethics 3. Engineering as social experimentation 4. Safety - responsibilities and right 5. Global issues

14	VIII	811AEE09	Air transportation and Aircraft Maintenance Management	<ol style="list-style-type: none"> 1. Introduction 2. Airline economic 3. Aircraft reliability 4. Principle of airline scheduling 5. Technology in aircraft maintenance
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Feedback obtained about curriculum and syllabus from stakeholders (Faculty, Students, Alumni and Employers) also discussed and concluded.

Date: 18/11/2017



Chairman

Board of Studies

Faculty of Aeronautical Engineering

ADHIYAMAAN COLLEGE OF ENGINEERING (Autonomous)

Hosur - 635 109, Tamil Nadu.



ADHIYAMAAN COLLEGE OF ENGINEERING, (AUTONOMOUS)
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DEPARTMENT OF AERONAUTICAL ENGINEERING
DR.M.G.R.NAGAR,HOSUR-635109

15th BOARD OF STUDIES MEETING IN FACULTY IN AERONAUTICAL ENGINEERING
ATTENDANCE DETAILS

Date: 20-10-2017

Sl.No	Name	Designation & Address	Category	Signature
1.	Dr.J.Arividainambi	Professor & Head Department of Aeronautical Engineering Adhiyamaan College of Engineering Hosur-635109	Chairman	
2.	Dr.K.M.Parammasivam	Professor Department of Aerospace Engineering MIT Campus, Anna University, Chennai-600044	University Nominee	← Absent →
3.	Dr. Sarat KumarMaharana	Professor, Dean R&D Department of Aeronautical Engineering Acharya Institute of Technology, Bangalore-560107	Academic Council Nominee	A
4.	Dr.V.Senthil Kumar	Associate Professor Department of Production Engineering, NIT Trichy, Tamil Nadu-620015		
5.	Dr.K.T.Varughese	Polymer Scientist Central Power Research Institute, Sadhasiva Nagar, Bangalore- 560080	Industrial Expert	
6.	Mr.R.AshokMithran	Business Executive Taneja Aerospace Aviation Ltd, Belagondapalli Village, Thally Road, Denkanikotta-Taluk, Krishnagiri District	Representative From Alumni	
7.	Dr.Channankaiah	Professor & Head Department of Mechanical Engineering Adhiyamaan College of Engineering Hosur-635109	Inter Disciplinary Expert	
8.	Mr.P.Muthusamy	Assistant Professor Department of Aeronautical Engineering Adhiyamaan College of Engineering Hosur-635109	Faculty Representative	
9.	Mr.T.Anand	Assistant Professor Department of Aeronautical Engineering Adhiyamaan College of Engineering Hosur-635109	Faculty Representative	← Absent →
10.	Ms.R.Priyanka	Assistant Professor Department of Aeronautical Engineering Adhiyamaan College of Engineering	Faculty Representative	



**ADHIYAMAAN COLLEGE OF ENGINEERING
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Dr.M.G.R.Nagar, Hosur-635130



Members in Clock wise Direction:

Mr.P.Muthusamy, Dr.Channankiah, Dr.A.Siddharthan, Dr.V.Senthilkumar, Ms.M.S.Deepika Kumar(GBM),
Dr.J.Arivudainambi, Ms.M.Sharadha, Mr.T.Anand



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BOARD OF STUDIES IN FACULTY OF AERONAUTICAL ENGINEERING

MINUTES OF THE 16th MEETING

DATE: 27/04/2018

The 16th Board of Studies Meeting of Aeronautical Engineering held on 27/04/2018 at 11:00 AM.

MEMBERS PRESENT

S.NO	Name	Category
1.	Dr.J.Arivudainambi	Chairman
2.	Dr.Sarat Kumar Maharana	Academic Council Nominee
3.	Dr.V.Senthilkumar	Academic Council Nominee
4.	Dr.K.T.Varughese	Industrial Expert
5.	Mr.R.Ashok Mitran	Representative From Alumini
6.	Dr.Channankiah	Inter Disciplinary Expert
7.	Mr.P.Muthusamy	Faculty Representative
8.	Ms.R.Priyanka	Faculty Representative

16.1 To consider the minutes of 15th meeting of the Board of Studies in Aeronautical Engineering held on 08/11/2017.

RESOLVED that the minutes of 15th Board of Studies Meeting in Aeronautical Engineering have been considered.

16.2 To consider the Curriculum & Syllabi of **III Semester B.E Aeronautical Engineering** under **Regulation 2015 (CBCS)** for the batch of students admitted in the year of 2017-2018 (**Annexure I**)

RESOLVED that the Curriculum & Syllabi of **III Semester B.E Aeronautical Engineering** under **Regulation 2015 (CBCS)** for the batch of students admitted in the year of 2017-2018 be approved. (**Annexure I**)

16.3 To consider the Curriculum & Syllabi of V Semester B.E Aeronautical Engineering under Regulation 2015 (CBCS) for the batch of students admitted in the year of 2016-2017(Annexure II)

RESOLVED that the Curriculum & Syllabi of V Semester B.E Aeronautical Engineering under Regulation 2015 (CBCS) for the batch of students admitted in the year of 2016-2017 be approved. (Annexure II)

16.4 To consider the Curriculum & Syllabi of VII Semester B.E, Aeronautical Engineering under Regulation 2015 for the batch of students admitted in the year of 2015-2016. (Annexure III)

RESOLVED that the Curriculum & Syllabi of VII Semester B.E, Aeronautical Engineering under Regulation 2015 for the batch of students admitted in the year of 2015-2016 be approved. (Annexure III)

DATE: 27/04/2018


CHAIRMAN
BOARD OF STUDIES
Chairman
Board of Studies

Faculty of Aeronautical Engineering
ADHIYAMAAN COLLEGE OF ENGINEERING (Autonomous)
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16th BOARD OF STUDIES

FACULTY OF AERONAUTICAL ENGINEERING- 16th MEETING ON 27/04/2018 @ 11:00 AM

16.5 New courses introduced/newly added topics in corresponding courses in the year of 2018

Sl.No	Semester	Subject Code	Subject Name	Remarks
				The existing syllabus has been entirely reframed with the following unit modules
1	III	315AET05	Solid mechanics	NEWLY ADDED TOPICS UNIT 4; Torsion and springs 1. Pure torsion 2. Torsion of circular shafts 3. Shear stresses and twist in solid 4. Hollow circular shaft 5. Closely coiled helical spring 6. Area moment method
2	III	315AEE07	Airline Operations and managements	1. Introduction 2. Airport management 3. Air transport service 4. Airline operation 5. Logistic and cargo management
3	III	315AEE08	Pollution control in aircraft industries	1. Source and effect of air pollution 2. Dispersion of pollution 3. Air pollution control 4. Air quality management 5. Noise pollution
4	III	315AEE09	Environmental Safety managements	1. Air pollution 2. Environmental management standards 3. Environmental measures and control 4. Preventive environmental management system 5. Environmental management system
5	III	315AEP11	Aero Modeling Laboratory	1. Construction of paper glider 2. Design and construction of glider 3. Design and Construction of water rocketry 4. Design and fabrication of aerofoil and control surface 5. Design and fabrication of fuselage 6. Study about electronic equipments used in UAV's 7. Assembly of UAV electronic equipments used in UAV's 8. Final assembly of UAV 9. Testing and flying of UAV 10. Basic study about Hovercraft

6	VII	715AEE06	Helicopter Aerodynamics	<ol style="list-style-type: none"> 1. Introduction to rotating wing concept 2. Hovering flight dynamics 3. Forward flight dynamics 4. Climb and descent performance 5. Ground effect missions
7	VII	715AEE07	Thermal stress analysis	<p>Newly added topics</p> <p>UNIT 1 Creep</p> <ol style="list-style-type: none"> 1. Factors influencing functional life of components 2. Creep curve 3. Ductile and brittle material 4. Monk man-Grant relationship
8	VII	715AEE08	Airworthiness and certification	<ol style="list-style-type: none"> 1. Airworthiness and certification 2. Airworthiness and procedure 3. Health and usage monitoring 4. Aircraft maintenance 5. Flight evaluation
9	VII	715MEO02	Non-Destructive Testing and Materials	<ol style="list-style-type: none"> 1. Introduction and visual inspection techniques 2. Liquid penetrate testing and magnetic particle testing 3. Eddy current testing and acoustic emission testing 4. Ultrasonic testing 5. Radiography, comparison and selection of NDT method
10	VII	715AEE14	Industrial engineering and managements	<ol style="list-style-type: none"> 1. Introduction 2. Work Study, Incentives, Health and safety 3. Motivation and Behavior 4. Management and Behavioral Approach 5. Process Management
11	VII	715AEP11	Autonomous UAV Laboratory	<ol style="list-style-type: none"> 1. Study of list generation method 2. Analysis of LOS/BLOS 3. Study of electric systems 4. Study of ethical implication 5. Study of unmanned Aerial system Propulsion 6. Analysis of Sensing / Surveillance 7. Study of internal combustion engines 8. Analysis of on-board flight control 9. Study of turbine engine 10. Building a working model of UAV flight
12	V	515AET02	Aircraft performance	<p>NEWLY ADDED TOPICS</p> <p>UNIT 2; Steady flight</p> <ol style="list-style-type: none"> 1. Steady level flight 2. Thrust /power 3. Available and required with altitude 4. Estimation of maximum level flight speed 5. Maximum range and glide 6. High lift devices
13	V	515AEE09	Space flight mechanics	<ol style="list-style-type: none"> 1. Basic concepts 2. The General N-Body problem 3. Satellite injection and satellite orbit perturbation 4. Interplanetary Trajectories 5. Ballistic missile Trajectories and materials

14	V	515AEE11	Unmanned Aircraft System	<ol style="list-style-type: none"> 1. Introduction to Unmanned aerial System 2. Basic Aerodynamic of unmanned aerial system 3. Design consideration of unmanned aerial system 4. Stability and control 5. Propulsion and surveillance
15	V	515AEE13	Fundamentals of Flight	<ol style="list-style-type: none"> 1. Introduction to principles of flight 2. Introduction to airplane structures & materials 3. Power Plant used in Airplanes & Spacecrafts 4. Aircraft Systems 5. Basics of aerodynamics
16	V	515AEP12	Hypermesh laboratory	<ol style="list-style-type: none"> 1. Two dimension model meshing <ol style="list-style-type: none"> a. Mesh the given circular plate with hole. b. Mesh the given I section, L section, T section. c. Mesh the given plate with a hole and hexagon d. Mesh the given plate with a hole, Hexagon and ellipse 2. Three dimension meshing <ol style="list-style-type: none"> a. Mesh the given clip repair model b. Mesh the given Car model c. Mesh the given Aircraft model d. Mesh the given Bracket model with riveting

Feedback obtained about curriculum and syllabus from stakeholders (Faculty, Students, Alumni and Employers) also discussed and concluded.

Date: 27/04/2018



Chairman
Board of Studies
Chairman
Board of Studies

Faculty of Aeronautical Engineering
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DEPARTMENT OF AERONAUTICAL ENGINEERING
DR.M.G.R.NAGAR,HOSUR-635109

16th BOARD OF STUDIES MEETING IN FACULTY IN AERONAUTICAL ENGINEERING
ATTENDANCE DETAILS

Date: 27-04-2018

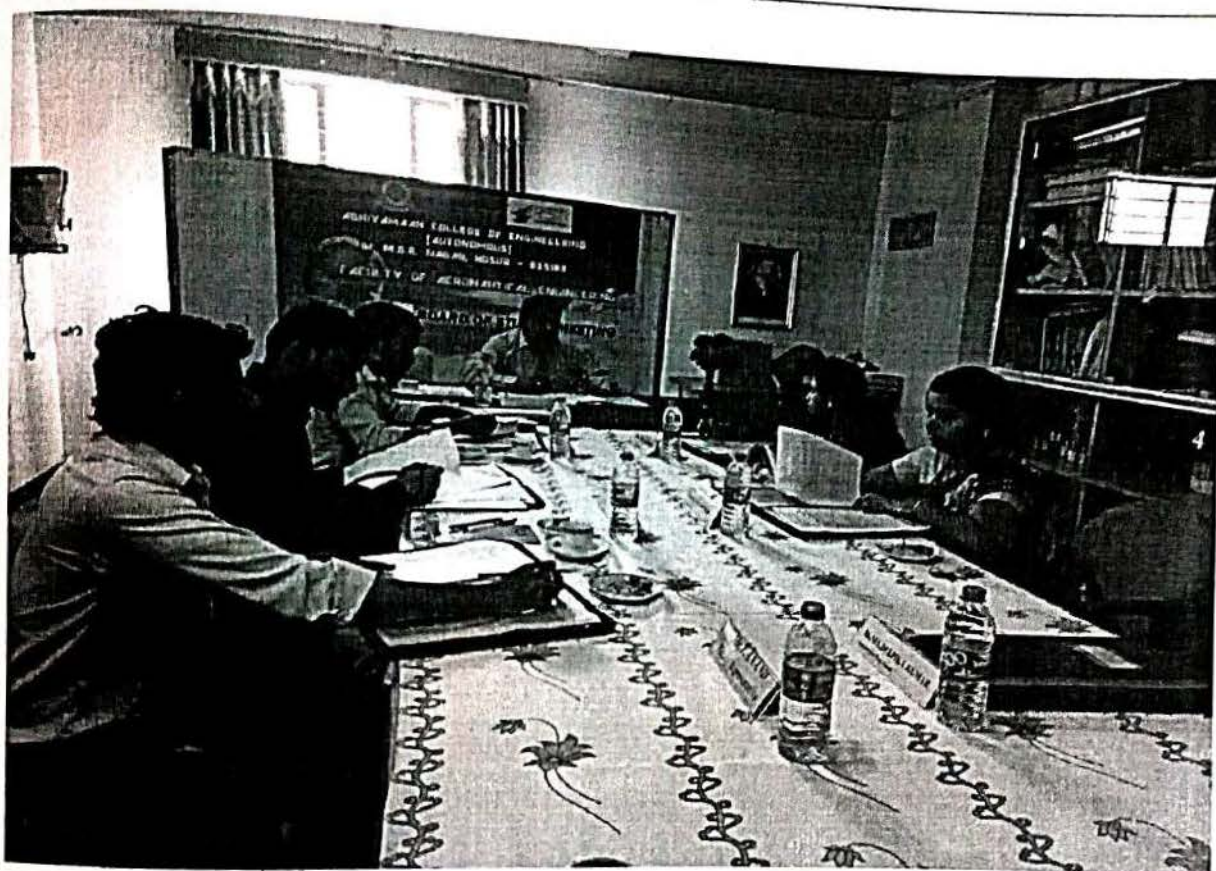
Sl.No	Name	Designation & Address	Category	Signature
1.	Dr.J.Arivudainambi	Professor & Head Department of Aeronautical Engineering Adhiyamaan College of Engineering Hosur-635109	Chairman	
2.	Dr.K.M.Parammasivam	Professor Department of Aerospace Engineering MIT Campus, Anna University, Chennai-600044	University Nominee	← Absent -
3.	Dr. Sarat KumarMaharana	Professor, Dean R&D Department of Aeronautical Engineering Acharya Institute of Technology, Bangalore-560107	Academic Council Nominee	
4.	Dr.V.Senthil Kumar	Associate Professor Department of Production Engineering, NIT Trichy, Tamil Nadu-620015		
5.	Dr.K.T.Varughese	Polymer Scientist Central Power Research Institute, Sadhasiva Nagar, Bangalore- 560080	Industrial Expert	
6.	Mr.R.AshokMithran	Business Executive Taneja Aerospace Aviation Ltd, Belagondapalli Village, Thally Road, Denkanikotta-Taluk, Krishnagiri District	Representative From Alumni	
7.	Dr.Channankaiah	Professor & Head Department of Mechanical Engineering Adhiyamaan College of Engineering Hosur-635109	Inter Disciplinary Expert	
8.	Mr.P.Muthusamy	Assistant Professor Department of Aeronautical Engineering Adhiyamaan College of Engineering Hosur-635109	Faculty Representative	
9.	Mr.T.Anand	Assistant Professor Department of Aeronautical Engineering Adhiyamaan College of Engineering Hosur-635109	Faculty Representative	← Absent -
10.	Ms.R.Priyanka	Assistant Professor Department of Aeronautical Engineering Adhiyamaan College of Engineering	Faculty Representative	



ADHIYAMAAN COLLEGE OF ENGINEERING (AUTONOMOUS)

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Members in Clock wise Direction:

Mr.P.Muthusamy, Dr.Channankiah, Dr.A.Siddharthan, Dr.V.Senthilkumar, Ms.M.S.DeepikaKumar (GBM),
Dr.J.Arivudainambi, Ms.M.Sharadha, Mr.T.Anand, Ms.R.Priyanka



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17th BOARD OF STUDIES MEETING IN FACULTY OF AERONAUTICAL ENGINEERING

MINUTES OF THE 17th MEETING

Date: 01/11/2018

The 17th Board of Studies Meeting of Aeronautical Engineering held on 01/11/2018 at 12:30 PM.

MEMBERS PRESENT

Sl.No	Name	Category
1	Dr.J.Arivudainambi	Chairman
2	Dr.A.Siddharthan	Academic Council Nominee
3	Dr.V.Senthilkumar	
4	Ms.M.Sharadha	Industrial Expert
5	Ms.M.S.Deepika Kumar (GBM)	Representative From Alumni
6	Dr.Channankiah	Inter Disciplinary Expert
7	Mr.P.Muthusamy	Faculty Representative
8	Mr.T.Anand	Faculty Representative
9	Ms.R.Priyanka	Faculty Representative

17.1 To consider the minutes of 16th meeting of the Board of Studies Meeting in Aeronautical Engineering held on 27/04/2018.

RESOLVED that the minutes of 16th Board of Studies Meeting in Aeronautical Engineering have been considered.

17.2 To consider the Syllabi of VIII Semester B.E Aeronautical Engineering under Regulation 2015 for the batch of students admitted in the year of 2015-2016. **(Annexure I)**

RESOLVED that the Syllabi of VIII Semester B.E Aeronautical Engineering under Regulation 2015 for the batch of students admitted in the year of 2015-2016 be approved. **(Annexure I)**

17.3 To consider the Syllabi of **VI Semester B.E Aeronautical Engineering under Regulation 2015 (CBCS)** for the batch of students admitted in the year of 2016-2017. (**Annexure II**)

RESOLVED that the Syllabi of **VI Semester B.E Aeronautical Engineering under Regulation 2015 (CBCS)** for the batch of students admitted in the year of 2016-2017 be approved. (**Annexure II**)

17.4 To consider the Syllabi of **IV Semester B.E Aeronautical Engineering under Regulation 2015 (CBCS)** for the batch of students admitted in the year of 2017-2018. (**Annexure III**)

RESOLVED that the Syllabi of **IV Semester B.E Aeronautical Engineering under Regulation 2015 (CBCS)** for the batch of students admitted in the year of 2017-2018 be approved. (**Annexure III**)

17.5 Any others

17.5.1 As per the suggestion given by the Board Members, changes are made in the following Professional Elective subjects in **VIII Semester B.E Aeronautical Engineering under Regulation 2015 (CBCS)** for the batch of students admitted during the period 2015-2016.

Newly added topics:

➤ **Rocket and missile (815AEE01):**

Unit - IV Staging and Controlling of Rockets and Missiles.

Topics included : Guided missile systems

: Rocket Stage Separation Techniques

➤ **Computer Integrated Manufacturing (815AEE07):**

Unit - IV Flexible Manufacturing System and Vehicle Guidance.

Topics included : Automated Guided Vehicle System (AGVS)

: Vehicle Guidance technology – Vehicle Management

17.5.2 Panel of Examiners:

❖ **Dr.J.Arivudainambi / Prof & Head**
Department of Aeronautical Engineering
Adhiyamaan College of Engineering
Hosur-635109.

❖ **Mr.P.Muthusamy /AP**
Department of Aeronautical Engineering
Adhiyamaan College of Engineering
Hosur-635109.

❖ **Mr.T.Anand /AP**
Department of Aeronautical Engineering
Adhiyamaan College of Engineering
Hosur-635109.

- ❖ **Dr.K.T.Varughese**
Polymer Scientist,
Central Power Research Institute
Sadhasiva Nagar, Bangalore-560080
- ❖ **Dr.K.M.Parammasivam / Prof**
Department of Aerospace Engineering,
MIT Campus, Anna University, Chennai-600044.
- ❖ **Mr. P.Vinayagam /AP**
Department of Aeronautical Engineering
Mahendra Engineering college.
Namakkal Dist. Tamilnadu.

- ❖ **M.M.Venugopal**
Asst Professor, Department of Aeronautical Engineering
MVJ College of Engineering
Near ITPB, Channasandra, Bangalore-560 067
- ❖ **Dr.V.Senthil Kumar**
Associate Professor
Department of Production Engineering,
NIT Trichy, Tamil Nadu-620015
- ❖ **Mr.Karthikeyan**
Associate professor
Dept of Aeronautical Engineering
Excel College of Engineering & Technology,
Namakkal-Dist.
- ❖ **Dr.A.Siddharthan**
Associate Professor
Department of Mechanical Engineering,
Anna University, Chennai-600025.
- ❖ **Dr. Sarat Kumar Maharana**
Professor, Dean R&D
Department of Aeronautical Engineering,
Acharya Institute of Technology, Bangalore-560107.

Date: 02/11/2018


Chairman
Board of Studies
Chairman
Board of Studies
Faculty of Aeronautical Engineering
ADHIYAMAAN COLLEGE OF ENGINEERING (Autonomous)
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ADHIYAMAAN COLLEGE OF ENGINEERING, (AUTONOMOUS)
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Dr.M.G.R.Nagar, Hosur-635130

17th BOARD OF STUDIES

FACULTY OF AERONAUTICAL ENGINEERING- 17th MEETING ON 01/11/2018 @ 12:30 PM

17.6 New courses introduced/newly added topics in corresponding courses in the year of 2018

Sl.No	Semester	Subject Code	Subject Name	Remarks
				The existing syllabus has been entirely reframed with the following unit modules
1.	IV	415AEE08	Introduction To Space Technology	1. Orbital Mechanics 2. Orbits In Three Dimensions 3. Orbital Maneuver 4. Rocket Motion In Free Space And Gravitational Field 5. Ballistic Missile Trajectories
2.	IV	415AEE06	Metal joining process	NEWLY ADDED TOPICS UNIT 4 ; material testing 1. Testing of material 2. Tensile testing 3. Compression testing 4. Hardness testing 5. Impact testing
3.	IV	415AEE09	Experimental Aerodynamic	1. Wind Tunnel Trmesting 2. Experiments in Subsonic Wind Tunnel 3. Experiment in high Speed Tunnel 4. Measurement Techniques 5. Aircraft Structural Problems
4.	IV	415AEP10	CATIA V5 R 21 Laboratory	1. Scaling,rotation,translation,editing,dimensionin g-Typical CAD command Structure 2. Wire Frame Modeling-Surface modeling 3. Solid Modeling 4. Advanced modeling 5. CFD/FEM Fundamentals 6. Part Design of an Aircraft Components 7. Tool Design of an Aircraft Components 8. Surface Design of Aircraft Components
5.	IV	415AEP11	Production Technology Laboratory	1. Lathe 2. Shaper and Slotter 3. Drilling 4. Milling 5. Grinding

6.	VI	615AET02	Experimental stress analysis	NEWLY ADDED TOPICS UNIT 2; Extensometers 1. Mechanical 2. Optical Acoustical and electrical extensometers and their uses 3. Extensometer disadvantages and advantages
7.	VI	615AEE08	Boundary Layer Theory	1. Navigation 2. Guidance 3. Aircraft Controls 4. Control techniques of Rockets And Missiles 5. Control Of spacecraft
8.	VI	615MEO01	Applied Hydraulics and pneumatics	1. Fluid Power Principles And Fundamentals 2. Hydraulic System And Components 3. Control Components, Accessories Of Hydraulic system 4. Pneumatic Systems And Components 5. Hydraulic And Pneumatic Circuits and Troubleshooting
9.	VI	615AEE12	Structural Dynamics	1. Force deflection properties of structures 2. Principles of dynamics 3. Natural modes of vibration 4. Energy methods 5. Approximate methods
10.	VI	615AEP10	Aircraft interior design Laboratory	1. aircraft sitting designing arrangement (general class)(2d) 2. aircraft sitting designing arrangement (business class)(2d) 3. Aircraft single aisle design(2d) 4. Aircraft twin aisle design(2d) 5. Aircraft seat design(3d business class) 6. Aircraft seat design(3d first class) 7. Design of laptop tray sizing of seats and civil aircraft 8. Design of window for civil aircraft 9. Design of wind shield for fighter aircraft 10. Design of wind shield for passenger aircraft
11.	VIII	815AEE43	Structural Dynamics	NEWLY ADDED TOPICS UNIT 1 1. Low speed wind tunnels 2. estimation of energy ratio and power required 3. Supersonic wind tunnel 4. Calculation of running time 5. storage tank requirements
12	VIII	815AEE04	Entrepreneurship development, management And IPR	1. introduction of entrepreneurship 2. Entrepreneurial development agencies 3. Project management 4. Introduction to intellectual priority 5. Patent rights
13	VIII	815AEE06	Human Values And Professional Ethics	1. Human values 2. Engineering ethics 3. Engineering as social experimentation 4. Safety - responsibilities and right 5. Global issues

14	VIII	815AEE09	Air transportation and Aircraft Maintenance Management	<ol style="list-style-type: none"> 1. Introduction 2. Airline economic 3. Aircraft reliability 4. Principle of airline scheduling 5. Technology in aircraft maintenance
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Feedback obtained about curriculum and syllabus from stakeholders (Faculty, Students, Alumni and Employers) also discussed and concluded.

Date: 01/11/2018


 Chairman
 Board of Studies
Faculty of Aeronautical Engineering
ADHIYAMAAN COLLEGE OF ENGINEERING (Autonomous)
 Hosur - 635 109, Tamil Nadu.



ADHIYAMAAN COLLEGE OF ENGINEERING, (AUTONOMOUS)
Affiliated to Anna University, Chennai
DEPARTMENT OF AERONAUTICAL ENGINEERING
DR.M.G.R.NAGAR,HOSUR-635109

16th BOARD OF STUDIES MEETING IN FACULTY IN AERONAUTICAL ENGINEERING
ATTENDANCE DETAILS

Date: 27-04-2018

Sl.No	Name	Designation & Address	Category	Signature
1.	Dr.J.Arivudainambi	Professor & Head Department of Aeronautical Engineering Adhiyamaan College of Engineering Hosur-635109	Chairman	
2.	Dr.K.M.Parammasivam	Professor Department of Aerospace Engineering MIT Campus, Anna University, Chennai-600044	University Nominee	← Absent →
3.	Dr. Sarat KumarMaharana	Professor, Dean R&D Department of Aeronautical Engineering Acharya Institute of Technology, Bangalore-560107	Academic Council Nominee	↓
4.	Dr.V.Senthil Kumar	Associate Professor Department of Production Engineering, NIT Trichy, Tamil Nadu-620015		
5.	Dr.K.T.Varughes	Polymer Scientist Central Power Research Institute, Sadhasiva Nagar, Bangalore- 560080	Industrial Expert	
6.	Mr.R.AshokMithran	Business Executive Taneja Aerospace Aviation Ltd, Belagondapalli Village, Thally Road, Denkanikotta-Taluk, Krishnagiri District	Representative From Alumni	
7.	Dr.Channankaiah	Professor & Head Department of Mechanical Engineering Adhiyamaan College of Engineering Hosur-635109	Inter Disciplinary Expert	
8.	Mr.P.Muthusamy	Assistant Professor Department of Aeronautical Engineering Adhiyamaan College of Engineering Hosur-635109	Faculty Representative	
9.	Mr.T.Anand	Assistant Professor Department of Aeronautical Engineering Adhiyamaan College of Engineering Hosur-635109	Faculty Representative	← Absent =
10.	Ms.R.Priyanka	Assistant Professor Department of Aeronautical Engineering Adhiyamaan College of Engineering	Faculty Representative	



ADHIYAMAAN COLLEGE OF ENGINEERING (AUTONOMOUS)

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Dr.M.G.R.Nagar, Hosur-635130



Members in Clock wise Direction:

Mr.P.Muthusamy, Dr.Channankiah, Dr.A.Siddharthan, Dr.V.Senthilkumar, Ms.M.S.DeepikaKumar (GBM),
Dr.J.Arivudainambi, Ms.M.Sharadha, Mr.T.Anand



ADHIYAMAAN COLLEGE OF ENGINEERING, (AUTONOMOUS)
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Dr.M.G.R.Nagar, Hosur-635130

18th BOARD OF STUDIES MEETING IN FACULTY OF AERONAUTICAL ENGINEERING

MINUTES OF THE 18th MEETING

Date: 30/04/2019

The 18th Board of Studies Meeting of Aeronautical Engineering held on 30/04/2019 at 10:30 AM.

MEMBERS PRESENT

Sl.No	Name	Category
1	Dr.J.Arivudainambi	Chairman
2	Dr.A.Siddharthan	Academic Council Nominee
3	Dr.V.Senthilkumar	
4	Ms.M.Sharadha	Industrial Expert
5	Ms.M.S.Deepika Kumar (GBM)	Representative From Alumni
6	Dr.Channankiah	Inter Disciplinary Expert
7	Mr.P.Muthusamy	Faculty Representative
8	Mr.T.Anand	Faculty Representative
9	Ms.R.Priyanka	Faculty Representative

18.1 To consider the minutes of 17th meeting of the Board of Studies Meeting in Aeronautical Engineering held on 01/11/2018.

RESOLVED that the minutes of 17th Board of Studies Meeting in Aeronautical Engineering have been considered.

18.2 To consider the Syllabi of VII Semester B.E Aeronautical Engineering under Regulation 2015 for the batch of students admitted in the year of 2016-2017. (Annexure I)

RESOLVED that the Syllabi of VII Semester B.E Aeronautical Engineering under Regulation 2015 for the batch of students admitted in the year of 2016-2017 be approved. (Annexure I)

18.3 To consider the Syllabi of V Semester B.E Aeronautical Engineering under Regulation 2015 (CBCS) for the batch of students admitted in the year of 2017-2018. (Annexure II)

RESOLVED that the Syllabi of V Semester B.E Aeronautical Engineering under Regulation 2015 (CBCS) for the batch of students admitted in the year of 2017-2018 be approved. (Annexure II)

18.4 To consider the Syllabi of III Semester B.E Aeronautical Engineering under Regulation 2018 (CBCS) for the batch of students admitted in the year of 2018-2019. (Annexure III)

RESOLVED that the Syllabi of III Semester B.E Aeronautical Engineering under Regulation 2018 (CBCS) for the batch of students admitted in the year of 2018-2019 be approved. (Annexure III)

18.5 Any others

18.5.1 As per the suggestion given by the Board Members, changes are made in the following Professional Elective subjects in III Semester B.E Aeronautical Engineering under Regulation 2018 (CBCS) for the batch of students admitted during the period 2018-2019.

Newly added topics:

➤ **Production Technology (318AEE05):**

Unit - III Unconventional Machining.

Topics included : Plasma Arc Machining
: Electrical Discharge Machining
: Water jet Machining

Unit - V Jigs & Fixtures, NDT and other Inspection Techniques.

Topics included : Types of Riveted and bolted Joints
: X-Ray, Magnetic particle inspection

Newly added Subject:

➤ **Elements of Aeronautical Engineering (318AEE06)**

18.5.2 As per the suggestion given by the Board Members, changes are made in the following One Credit Courses III, V and VII Semester B.E Aeronautical Engineering under Regulation 2018 (CBCS) for the batch of students.

- **ATC-Air Traffic Control**
- **NDT-Non Destructive Testing**
- **Product Design and Development (Catia-V5, Creo, CFD)**

5.3 As per the suggestion given by the Board Members, changes are made in the following **Certification Courses for III, V and VII Semester B.E Aeronautical Engineering under Regulation 2018 (CBCS)** for the batch of students.

- Aerospace Engineering
- CNC-Computer Numerical Control
- ANSYS-Product design and Analysis


5.4 Panel of Examiners:

- ❖ **Dr.J.Arivudainambi / Prof & Head**
Department of Aeronautical Engineering
Adhiyamaan College of Engineering
Hosur-635109.
- ❖ **Mr.P.Muthusamy /AP**
Department of Aeronautical Engineering
Adhiyamaan College of Engineering
Hosur-635109.
- ❖ **Mr.T.Anand /AP**
Department of Aeronautical Engineering
Adhiyamaan College of Engineering
Hosur-635109.
- ❖ **Dr.K.T.Varughese**
Polymer Scientist,
Central Power Research Institute
Sadhasiva Nagar, Bangalore-560080
- ❖ **Dr.K.M.Parammasivam / Prof**
Department of Aerospace Engineering,
MIT Campus, Anna University, Chennai-600044.
- ❖ **Mr. P.Vinayagam /AP**
Department of Aeronautical Engineering
Mahendra Engineering college.
Namakkal Dist. Tamilnadu.
- ❖ **M.M.Venugopal**
Asst Professor, Department of Aeronautical Engineering
MVJ College of Engineering
Near ITPB, Channasandra, Bangalore-560 067
- ❖ **Dr.V.Senthil Kumar**
Associate Professor
Department of Production Engineering,
NIT Trichy, Tamil Nadu-620015
- ❖ **Mr.Karthikeyan**
Associate professor
Dept of Aeronautical Engineering
Excel College of Engineering & Technology,
Namakkal-Dist.

❖ **Dr.A.Siddharthan**
Associate Professor
Department of Mechanical Engineering,
Anna University, Chennai-600025.

❖ **Dr. Sarat Kumar Maharana**
Professor, Dean R&D
Department of Aeronautical Engineering,
Acharya Institute of Technology, Bangalore-560107.

Date: 30/04/2019


Chairman
Board of Studies

Chairman
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Faculty of Aeronautical Engineering
ADHIYAMAAN COLLEGE OF ENGINEERING (Autonomous)
Hosur - 635 109, Tamil Nadu.



ADHIYAMAAN COLLEGE OF ENGINEERING, (AUTONOMOUS)

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Dr.M.G.R.Nagar, Hosur-635130

18th BOARD OF STUDIES

FACULTY OF AERONAUTICAL ENGINEERING- 18th MEETING ON 30/04/2019 @ 11:00 AM

18.6 New courses introduced/newly added topics in corresponding courses in the year of 2019

Sl.No	Semester	Subject Code	Subject Name	Remarks
				The existing syllabus has been entirely reframed with the following unit modules
1	III	318AEE06	Elements of aeronautical engineering	NEWLY ADDED TOPICS UNIT 3; Basics of aerodynamics 1. Physical properties of structural atmosphere 2. Altitude relation 3. Newtons law applied to aeronautics 4. Evolution of lift, drag and moment 5. Airfoils 6. Mach number and maneuvers
1	III	318AEE07	Airline Operations and managements	1. Introduction 2. Airport management 3. Air transport service 4. Airline operation 5. Logistic and cargo management
2	III	318AEE08	Pollution control in aircraft industries	1. Source and effect of air pollution 2. Dispersion of pollution 3. Air pollution control 4. Air quality management 5. Noise pollution
3	III	318AEE09	Environmental Safety managements	1. Air pollution 2. Environmental management standards 3. Environmental measures and control 4. Preventive environmental management system 5. Environmental management system
4	III	318AEP11	Aero Modeling Laboratory	1. Construction of paper glider 2. Design and construction of glider 3. Design and Construction of water rocketry 4. Design and fabrication of aerofoil and control surface 5. Design and fabrication of fuselage 6. Study about electronic equipments used in UAV's 7. Assembly of UAV electronic equipments used in UAV's 8. Final assembly of UAV 9. Testing and flying of UAV 10. Basic study about Hovercraft

5	VII	715AET04	Vibration and Aero elasticity	NEWLY ADDED TOPICS UNIT 2; Single degree of freedom 1. Free vibration 2. Damped vibration 3. Forced vibration 4. Support excitation 5. Vibration measuring instrument
6	VII	715AEE06	Helicopter Aerodynamics	1. Introduction to rotating wing concert 2. Hovering flight dynamics 3. Forward flight dynamics 4. Climb and descent performance 5. Ground effect missions
7	VII	715AEE08	Airworthiness and certification	1. Airworthiness and certification 2. Airworthiness and procedure 3. Health and usage monitoring 4. Aircraft maintenance 5. Flight evaluation
8	VII	715MEO02	Non-Destructive Testing and Materials	1. Introduction and visual inspection techniques 2. Liquid penetrate testing and magnetic particle testing 3. Eddy current testing and acoustic emission testing 4. Ultrasonic testing 5. Radiography, comparison and selection of NDT method
9.	VII	715AEE14	Industrial engineering and managements	1. Introduction 2. Work Study, Incentives, Health and safety 3. Motivation and Behavior 4. Management and Behavioral Approach 5. Process Management
10	VII	715AEP11	Autonomous UAV Laboratory	1. Study of list generation method 2. Analysis of LOS/BLOS 3. Study of electric systems 4. Study of ethical implication 5. Study of unmanned Aerial system Propulsion 6. Analysis of Sensing / Surveillance 7. Study of internal combustion engines 8. Analysis of on-board flight control 9. Study of turbine engine 10. Building a working model of UAV flight
11	V	515AEE05	Aircraft rules and regulations	NEWLY ADDED TOPICS UNIT 4; Health and useage monitoring 1. On condition of AME Licence 2. Experience 3. Mandatory 4. Modification inspections
12	V	515AEE09	Space flight mechanics	1. Basic concepts 2. The General N-Body problem 3. Satellite injection and satellite orbit perturbation 4. Interplanetary Trajectories 5. Ballistic missile Trajectories and materials

28	VIII	818AEE04	Entrepreneurship development, management And IPR	<ol style="list-style-type: none"> 1. introduction of entrepreneurship 2. Entrepreneurial development agencies 3. Project management 4. Introduction to intellectual priority 5. Patent rights
29	VIII	818AEE06	Human Values And Professional Ethics	<ol style="list-style-type: none"> 1. Human values 2. Engineering ethics 3. Engineering as social experimentation 4. Safety - responsibilities and right 5. Global issues
30	VIII	818AEE09	Air transportation and Aircraft Maintenance Management	<ol style="list-style-type: none"> 1. Introduction 2. Airline economic 3. Aircraft reliability 4. Principle of airline scheduling 5. Technology in aircraft maintenance

Feedback obtained about curriculum and syllabus from stakeholders (Faculty, Students, Alumni and Employers) also discussed and concluded.

Date:14/10/2020



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Chairman
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DEPARTMENT OF AERONAUTICAL ENGINEERING
Dr.M.G.R.NAGAR, HOSUR-635109.

18th BOARD OF STUDIES MEETING IN FACULTY IN AERONAUTICAL ENGINEERING
ATTENDANCE DETAILS

Date: 30-04-2019

No	Name	Designation & Address	Category	Signature
1.	Dr.J.Arivudainambi	Professor & Head Department of Aeronautical Engineering Adhiyamaan College of Engineering Hosur-635109	Chairman	
2.	Dr.V.Arumugam	Associate Professor Department of Aerospace Engineering MIT Campus, Anna University, Chennai-600044	University Nominee	— Absent —
3.	Dr.A.Siddharthan	Assistant Professor Department of Mechanical Engineering, Anna University, Chennai-600025	Academic Council Nominee	Dr. A. Siddharthan
4.	Dr.V.Senthil Kumar	Associate Professor Department of Production Engineering, NIT Trichy, Tamil Nadu-620015		Dr. V. Senthil Kumar
5.	Ms.M.Sharadha	Business Development Taneja Aerospace Aviation Ltd, Belagondapalli Village, Thally Road, Denkanikotta-Taluk, Krishnagiri District.	Industrial Expert	N. Saratha
6.	Ms.M.S.Deepika Kumar (GBM)	HR & Finance Manager Zing e-commerce pvt ltd, No.6, 2nd Cross, Byappanahalli Layout, Behind Swami Vivekanand Metro Station. Bangalore-560038.	Representative From Alumni	Deepika M.S.
7.	Dr.Channankaiah	Professor & Head Department of Mechanical Engineering Adhiyamaan College of Engineering Hosur-635109.	Inter Disciplinary Expert	
8.	Mr.P.Muthusamy	Assistant Professor Department of Aeronautical Engineering. Adhiyamaan College of Engineering Hosur-635109.	Faculty Representative	
9.	Mr.T.Anand	Assistant Professor Department of Aeronautical Engineering Adhiyamaan College of Engineering Hosur-635109	Faculty Representative	
10.	Ms.R.Priyanka	Assistant Professor Department of Aeronautical Engineering Adhiyamaan College of Engineering Hosur-635109	Faculty Representative	R. Priyanka

CHAIRMAN

Chairman
Board of Studies
Faculty of Aeronautical Engineering
ADHIYAMAAN COLLEGE OF ENGINEERING (Autonomous)
Hosur - 635 109, Tamil Nadu.



ADHIYAMAAN COLLEGE OF ENGINEERING (AUTONOMOUS)

Affiliated to Anna University, Chennai

Dr.M.G.R.Nagar, Hosur-635130



Members in Clock wise Direction:

Mr.P.Muthusamy, Dr.Channankiah, Dr.A.Siddharthan, Dr.V.Senthilkumar, Ms.M.S.DeepikaKumar (GBM),
Dr.J.Arivudainambi, Ms.M.Sharadha, Mr.T.Anand, Ms.R.Priyanka



ADHIYAMAAN COLLEGE OF ENGINEERING, (AUTONOMOUS)

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Dr.M.G.R.Nagar, Hosur-635130

19th BOARD OF STUDIES MEETING IN FACULTY OF AERONAUTICAL ENGINEERING

MINUTES OF THE 19th MEETING

Date: 05/11/2019

The 19th Board of Studies Meeting of Aeronautical Engineering held on **05/11/2019** at **10:30 AM**.

MEMBERS PRESENT

Sl.No	Name	Category
1	Dr.J.Arivudainambi	Chairman
2	Dr.A.Siddharthan	Academic Council Nominee
3	Dr.V.Senthilkumar	
4	Ms.M.Sharadha	Industrial Expert
5	Ms.M.S.Deepika Kumar (GBM)	Representative From Alumni
6	Dr.S.V.Suresh Babu	Inter Disciplinary Expert
7	Mr.P.Muthusamy	Faculty Representative
8	Mr.T.Anand	Faculty Representative
9	Ms.R.Priyanka	Faculty Representative

19.1 To consider the minutes of 18th meeting of the Board of Studies Meeting in Aeronautical Engineering held on 30/04/2019.

RESOLVED that the minutes of 18th Board of Studies Meeting in Aeronautical Engineering have been considered.

19.2 To consider the Syllabi of **VIII Semester B.E Aeronautical Engineering** under Regulation 2015 for the batch of students admitted in the year of 2016-2017. (**Annexure I**)

RESOLVED that the Syllabi of **VIII Semester B.E Aeronautical Engineering** under Regulation 2015 for the batch of students admitted in the year of 2016-2017 be approved (**Annexure I**)

19.3 To consider the Syllabi of **VI Semester B.E Aeronautical Engineering under Regulation 2015 (CBCS)** for the batch of students admitted in the year of 2017-2018. (**Annexure II**)

RESOLVED that the Syllabi of **VI Semester B.E Aeronautical Engineering under Regulation 2015 (CBCS)** for the batch of students admitted in the year of 2017-2018 be approved. (**Annexure II**)

19.4 To consider the Syllabi of **IV Semester B.E Aeronautical Engineering under Regulation 2018 (CBCS)** for the batch of students admitted in the year of 2018-2019. (**Annexure III**)

RESOLVED that the Syllabi of **IV Semester B.E Aeronautical Engineering under Regulation 2018 (CBCS)** for the batch of students admitted in the year of 2018-2019 be approved. (**Annexure III**)

19.5 Any others

19.5.1 As per the suggestion given by the Board Members, changes are made in the following Professional Core & Professional Elective subjects in **IV Semester B.E Aeronautical Engineering under Regulation 2018 (CBCS)** for the batch of students admitted during the period 2018-2019.

Newly added topics:

❖ **Aerodynamics – I (418AET02):**

Unit – IV Airfoil and Wing Theory

Topics included: Multi-element airfoils, Source doublet, line and horse shoe vortices.

Unit - V Viscous Flow

Topics included: Case studies (i) Application of equation of motion by Navier- stokes
(ii) Parallel computation of viscous flow over wing

❖ **Propulsion-I (418AET05):**

Unit - IV Combustion Chambers

Topics included: Factors affecting combustion chamber design and their performance

Unit - IV Nozzles

Topics included: Nozzle throat conditions, Under expanded and over expanded nozzles, Thrust reversal.

19.5.2 Special Approvals

- ❖ As per the suggestion given by the Board Members, changes are made in the following **One Credit Courses VI and IV Semester** in B.E Aeronautical Engineering under R2015 & R2018 (CBCS) for the batch of students.

One Credit Course:

- ❖ Introduced **Air Traffic Control (ATC)** - To create more Employment opportunities for third year students, Air Traffic Control Techniques is introduced with practical Training at **Taneja Aerospace and Aviation Ltd (TAAL)** -Hosur.
- ❖ Introduced **Product Design and Development by using (Catia-V5, Creo, CFD)**–As value added course for second year students to learn, design and analysis of aircraft components for production thru experts.
- ❖ As per the suggestion given by the Board Members, changes are made in the following **Certification Courses** for B.E Aeronautical Engineering under **Regulation 2018** (CBCS) for the batch of students.

Certification Course:

- **Drone Technology**
- **CNC-Computer Numerical Control**
- **ANSYS-Product design and Analysis**

19.5.3 Panel of Examiners:

- ❖ **Dr.J.Arivudainambi / Prof & Head**
Department of Aeronautical Engineering
Adhiyamaan College of Engineering
Hosur-635109.
- ❖ **Mr.P.Muthusamy /AP**
Department of Aeronautical Engineering
Adhiyamaan College of Engineering
Hosur-635109.
- ❖ **Mr.T.Anand /AP**
Department of Aeronautical Engineering
Adhiyamaan College of Engineering
Hosur-635109.

- ❖ **Dr.K.T.Varughese**
Polymer Scientist,
Central Power Research Institute
Sadhasiva Nagar, Bangalore-560080
- ❖ **Dr.K.M.Parammasivam / Prof**
Department of Aerospace Engineering,
MIT Campus, Anna University, Chennai-600044.
- ❖ **Mr. P.Vinayagam /AP**
Department of Aeronautical Engineering
Mahendra Engineering college.
Namakkal Dist. Tamilnadu.
- ❖ **M.M.Venugopal**
Asst Professor, Department of Aeronautical Engineering
MVJ College of Engineering
Near ITPB, Channasandra, Bangalore-560 067
- ❖ **Dr.V.Senthil Kumar**
Associate Professor
Department of Production Engineering,
NIT Trichy, Tamil Nadu-620015
- ❖ **Mr.Karthikeyan**
Associate professor
Dept of Aeronautical Engineering
Excel College of Engineering & Technology,
Namakkal-Dist.
- ❖ **Dr.A.Siddharthan**
Associate Professor
Department of Mechanical Engineering,
Anna University, Chennai-600025.
- ❖ **Dr. Sarat Kumar Maharana**
Professor, Dean R&D
Department of Aeronautical Engineering,
Acharya Institute of Technology, Bangalore-560107.

Date: 05/11/2019


Chairman
Board of Studies

Chairman
Board of Studies
Faculty of Aeronautical Engineering
ADHIYAMAAN COLLEGE OF ENGINEERING (Autonomous)
Hosur - 635 109, Tamil Nadu.



ADHIYAMAAN COLLEGE OF ENGINEERING, (AUTONOMOUS)

Affiliated to Anna University, Chennai

Dr.M.G.R.Nagar, Hosur-635130

19th BOARD OF STUDIES

FACULTY OF AERONAUTICAL ENGINEERING- 19th MEETING ON 05/11/2019

@ 10:30 AM

19.1 New courses introduced/newly added topics in corresponding courses in the year of 2019

Sl.No	Semester	Subject Code	Subject Name	Remark
				The existing syllabus has been entirely reframed with the following unit modules
1	VIII	818AEE04	Entrepreneurship Development Management & IPR	<ol style="list-style-type: none"> 1. Introduction of Entrepreneurship 2. Entrepreneurial Development Agencies 3. Project Management 4. Introduction to Intellectual Property 5. Patent Rights
2	VIII	818AEE06	Human Values and Professional Ethics	<ol style="list-style-type: none"> 1. Human Values 2. Engineering Ethics 3. Engineering as Social Experimentation 4. Safety Responsibilities and Rights 5. Global Issues
3	VIII	818AEE09	Air Transportation and Aircraft Maintenance Management	<ol style="list-style-type: none"> 1. Introduction 2. Airline Economics 3. Principle of Airline Scheduling 4. Aircraft Reliability 5. Technology in Aircraft Maintenance
	VIII	815AEE07	Computer Integrated Manufacturing	<p>NEWLY ADDED TOPIC</p> <p>Unit 5: Industrial Robotics</p> <ol style="list-style-type: none"> A. Robot Anatomy and Related Attributes B. Classification Of Robots C. Robot Control Systems D. End Effectors E. Sensors in Robotics F. Robot Accuracy and Repeatability G. Industrial Robot Applications H. Robot Part Programming I. Simple Problems

4	VI	618AEE08	Boundary layer Theory	<ol style="list-style-type: none"> 1. Navigation 2. Guidance 3. Aircraft Controls 4. Control Technique of Rockets and Missiles 5. Control of Space crafts
5	VI	618MEO01	Applied Hydraulics and Pneumatics	<ol style="list-style-type: none"> 1. Fluid Power Principles and Fundamentals 2. Hydraulics Systems and Components 3. Control Components, Accessories of Hydraulic System 4. Pneumatic System and Components 5. Hydraulic and Pneumatic circuit and Troubleshooting
6	VI	618AEE12	Structural Dynamics	<ol style="list-style-type: none"> 1. Force Deflection Properties of Structures 2. Principles of Dynamics 3. Natural Modes of Vibration 4. Energy Methods 5. Approximate Methods
7	VI	618AEP10	Aircraft Interior Design Laboratory	<ol style="list-style-type: none"> 1. Aircraft Seating Design Arrangements (General Class) (2D) 2. Aircraft Seating Design Arrangement (Business Class) (2D) 3. Aircraft Single Aisle Design (2D) 4. Aircraft Twin Aisle Design (2D) 5. Aircraft Seat Design (3D Business Class) 6. Aircraft Seat Design (3D First Class) 7. Design of Laptop Tray sizing for seating in Civil Aircrafts 8. Design of Windows for Civil Aircraft 9. Design of Wind Shield for Fighter Aircraft (Select anyone Airplane) 10. Design of Wind Shield for Passenger Aircraft (Select any one Airplane)
	VI	615AEE05	Theory Of Elasticity	<p>NEWLY ADDED TOPIC</p> <p>Unit 2: Basic Equations Of Elasticity</p> <p>A. Strain- Displacement Relations</p>

				<ul style="list-style-type: none"> B. Stress-Strain Relations C. Lamé's constant-Cubical dilation D. Compressibility of Material E. Bulk Modulus F. Shear Modulus G. Compatibility equation for Stress and Strains H. Principal Stresses And Principal Strains I. Mohr's Circle J. Saint Venant's Principle
8	IV	418AEE06	Metal Joining Process and NDT	<ul style="list-style-type: none"> 1. Basic of Metal Joining Process 2. Conventional Metal Joining Process 3. Advanced Metal Joining Process 4. Material Testing 5. Non Destructive Testing
9	IV	418AEE08	Introduction to Space Technology	<ul style="list-style-type: none"> 1. Orbital Mechanics 2. Orbits in Three Dimensions 3. Orbital Maneuver 4. Rocket Motion in Free Space and Gravitational Field 5. Ballistic Missile Trajectories
10	IV	418AEE09	Experimental Aerodynamics	<ul style="list-style-type: none"> 1. Wind Tunnel Testing 2. Experiments in Subsonic Wind Tunnel 3. Experiments in High Speed Tunnels 4. Measurement Techniques 5. Aircraft Special Problems
11	IV	418AEP10	CATIA V5 R 21 Laboratory	<ul style="list-style-type: none"> 1. Scaling, rotation, translation, editing, dimensioning- Typical CAD command Structure 2. Wire Frame Modeling- Surface modeling 3. Solid Modeling 4. Advanced modeling 5. CFD/FEM Fundamentals 6. Part Design of an Aircraft Components 7. Tool Design of an Aircraft Components Surface Design of Aircraft Components
12	IV	418AEP11	Production Technology Laboratory	<ul style="list-style-type: none"> 1. Lathe <ul style="list-style-type: none"> 1.1 Facing, Plain Turning, Step Turning

				<p>1.2 Taper Turning using Compound Rest</p> <p>1.3 Taper Turning using Taper Turning Attachment</p> <p>1.4 Single Start V thread Cutting and Knurling</p> <p>1.5 Boring and Internal Thread Cutting</p> <p>2. Shaper and Slotter</p> <p>2.1 Machining a V block (in a Shaper)</p> <p>2.2 Machining a Hexagonal shape (in a Shaper)</p> <p>2.3 Machining Internal Keyway (in a Slotter)</p> <p>3. Drilling</p> <p>3.1 Drilling 4 or 6 holes at a given pitch circle on a plate</p> <p>3.2 Drilling, Reaming and Tapping</p> <p>4 Milling</p> <p>4.1 Plain Milling Exercise</p> <p>4.2 Gear Milling Exercise</p> <p>5 Grinding</p> <p>Cylindrical Grinding Exercise</p>
	IV	418AEE10	Mechanics of Machine	<p>NEWLY ADDED TOPIC</p> <p>Unit 5: Vibration</p> <p>A. Free, Forced And Damped Vibrations Of Single Degree Of freedom System</p> <p>B. Forced Transmitted to Supports</p> <p>C. Vibration Isolation</p> <p>D. Vibration Absorption</p> <p>E. Torsional Vibration Of shaft</p> <p>F. Single and Multi-Rotor systems</p> <p>G. Geared Shaft</p> <p>H. Critical speed Of Shaft</p>
<p>Feedback obtained about curriculum and syllabus from stakeholders (Faculty, Students, Alumni and Employers) also discussed and concluded.</p>				

Date: 05/11/2019


Chairman
Board of Studies

Faculty of Aeronautical Engineering
ADHIYAMAAN COLLEGE OF ENGINEERING (Autonomous)
Hosur - 635 109, Tamil Nadu.



ADHIYAMAAN COLLEGE OF ENGINEERING, (AUTONOMOUS)
Affiliated to Anna University, Chennai
DEPARTMENT OF AERONAUTICAL ENGINEERING
Dr.M.G.R.NAGAR, HOSUR-635109.

19th BOARD OF STUDIES MEETING IN FACULTY IN AERONAUTICAL ENGINEERING
ATTENDANCE DETAILS

Date: 05-11-2019

No	Name	Designation & Address	Category	Signature
1.	Dr.J.Arivudainambi	Professor & Head Department of Aeronautical Engineering Adhiyamaan College of Engineering Hosur-635109	Chairman	
2.	Dr.V.Arumugam	Associate Professor Department of Aerospace Engineering MIT Campus, Anna University, Chennai-600044	University Nominee	← Absent →
3.	Dr.A.Siddharthan	Assistant Professor Department of Mechanical Engineering, Anna University, Chennai-600025	Academic Council Nominee	Dr. A. Siddharthan
4.	Dr.V.Senthil Kumar	Associate Professor Department of Production Engineering, NIT Trichy, Tamil Nadu-620015		Dr. V. Senthil Kumar
5.	Ms.M.Sharadha	Business Development Taneja Aerospace Aviation Ltd, Belagondapalli Village, Thally Road, Denkanikotta-Taluk, Krishnagiri District.	Industrial Expert	M. Saratha
6.	Ms.M.S.Deepika Kumar (GBM)	HR & Finance Manager Zing e-commerce pvt ltd. No.6, 2nd Cross, Byuppanahalli Layout, Behind Swami Vivekanand Metro Station, Bangalore-560038.	Representative From Alumni	Deepika M.S.
7.	Dr.S.V.Suresh Babu	Professor & Head Department of Mechanical Engineering Adhiyamaan College of Engineering Hosur-635109.	Inter Disciplinary Expert	S. V. Suresh Babu
8.	Mr.P.Muthusamy	Assistant Professor Department of Aeronautical Engineering Adhiyamaan College of Engineering Hosur-635109.	Faculty Representative	
9.	Mr.T.Anand	Assistant Professor Department of Aeronautical Engineering Adhiyamaan College of Engineering Hosur-635109	Faculty Representative	T. Anand
10.	Ms.R.Priyanka	Assistant Professor Department of Aeronautical Engineering Adhiyamaan College of Engineering Hosur-635109	Faculty Representative	R. Priyanka

CHAIRMAN

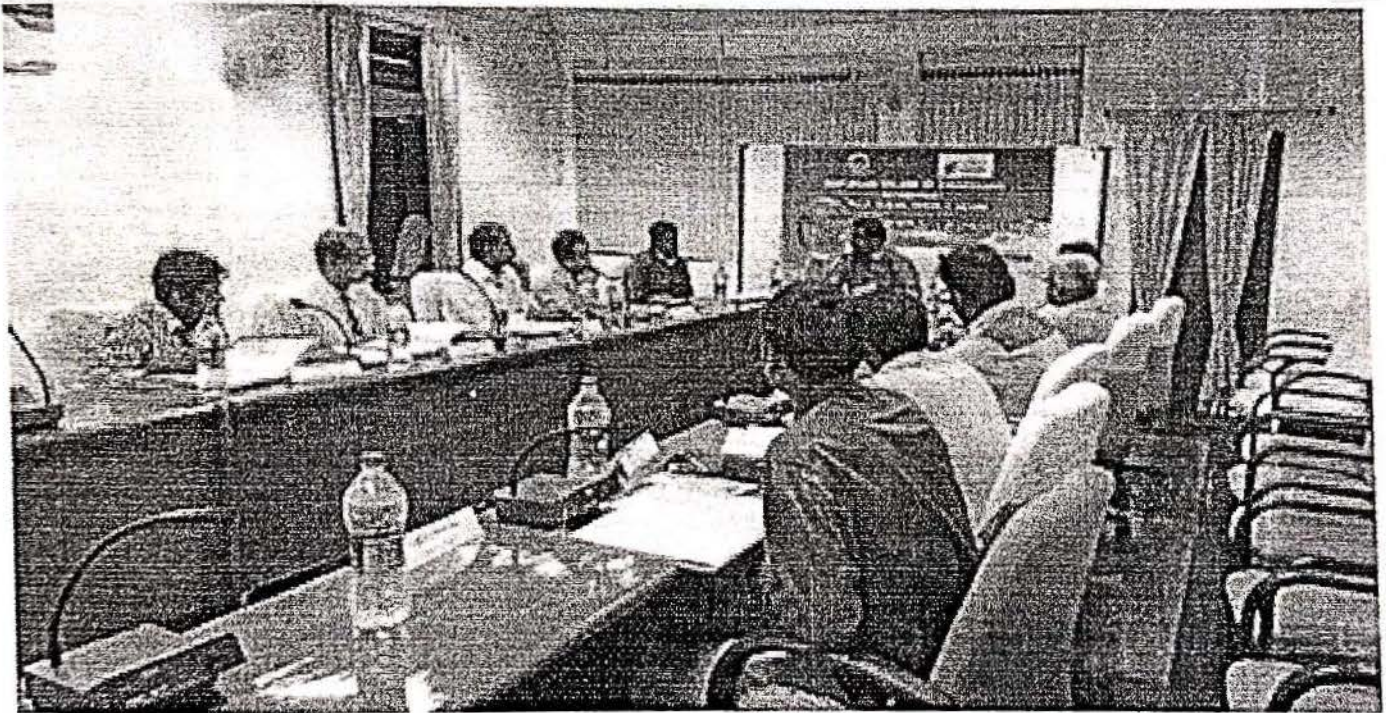
Chairman
Board of Studies
Faculty of Aeronautical Engineering
ADHIYAMAAN COLLEGE OF ENGINEERING (Autonomous)
Hosur - 635 109, Tamil Nadu.



**ADHIYAMAAN COLLEGE OF ENGINEERING
(AUTONOMOUS)**

Affiliated to Anna University, Chennai

Dr.M.G.R.Nagar, Hosur-635130



Members in Clock wise Direction:

Mr.P.Muthusamy, Dr.Channankiah, Dr.A.Siddharthan, Dr.V.Senthilkumar, Ms.M.S.Deepika Kumar(GBM),
Dr.J.Arivudainambi, Ms.M.Sharadha, Mr.T.Anand



ADHIYAMAAN COLLEGE OF ENGINEERING, (AUTONOMOUS)
Affiliated to Anna University, Chennai
Dr.M.G.R.Nagar, Hosur-635109

20th BOARD OF STUDIES MEETING IN FACULTY OF AERONAUTICAL ENGINEERING

MINUTES OF THE 20th MEETING

Date: 14/10/2020

The 20th Board of Studies Meeting of Aeronautical Engineering held on 14/10/2020 at 2:00 PM.

MEMBERS PRESENT

Sl.No	Name	Category
1.	Dr.J.Arivudainambi	Chairman
2.	Dr. Yogesh Kumar Sinha	Anna University Nominee
3.	Dr.V.Senthilkumar	Academic Council Nominee
4.	Dr. Babu. S	
5.	Mr. Infant Dean Jones D	Industrial Expert
6.	Ms.Logini C	Representative From Alumni
7.	Dr.S.V.Suresh Babu	Inter Disciplinary Expert
8.	Mr.P.Muthusamy	Faculty Representative
9.	Mr.T.Anand	Faculty Representative
10.	Ms.R.Priyanka	Faculty Representative

20.1 To consider the minutes of 19th Board of Studies meeting in Aeronautical Engineering held on 05/11/2019.

RESOLVED that the minutes of 19th Board of Studies Meeting in Aeronautical Engineering have been considered.

20.2 To consider the minutes of the Board of Studies meeting in Aeronautical Engineering held on 25/06/2020.

RESOLVED that the minutes of the Board of Studies Meeting in Aeronautical Engineering have been considered.

20.3 To consider the Syllabi of **VII Semester B.E Aeronautical Engineering** under Regulation 2015 (CBCS) for the batch of students admitted in the year of 2017-2018. (**Annexure I**)

RESOLVED that the Syllabi of **VII Semester B.E Aeronautical Engineering** under Regulation 2015 for the batch of students admitted in the year of 2017-2018 be approved. (**Annexure I**)

20.4 To consider the Syllabi of **V Semester B.E Aeronautical Engineering** under Regulation 2018 (CBCS) for the batch of students admitted in the year of 2018-2019. (**Annexure II**)

RESOLVED that the Syllabi of **V Semester B.E Aeronautical Engineering** under Regulation 2018 (CBCS) for the batch of students admitted in the year of 2018-2019 be approved. (**Annexure II**)

20.5 To consider the Syllabi of **III Semester B.E Aeronautical Engineering** under Regulation 2018 (CBCS) for the batch of students admitted in the year of 2019-2020. (**Annexure III**)

RESOLVED that the Syllabi of **III Semester B.E Aeronautical Engineering** under Regulation 2018 (CBCS) for the batch of students admitted in the year of 2019-2020 be approved. (**Annexure III**)

20.6 To consider the Syllabi of **VIII Semester B.E Aeronautical Engineering** under Regulation 2015 (CBCS) for the batch of students admitted in the year of 2017-2018. (**Annexure IV**)

RESOLVED that the Syllabi of **VIII Semester B.E Aeronautical Engineering** under Regulation 2015 (CBCS) for the batch of students admitted in the year of 2017-2018 be approved. (**Annexure IV**)

20.7 To consider the Syllabi of **VI Semester B.E Aeronautical Engineering** under Regulation 2018 (CBCS) for the batch of students admitted in the year of 2018-2019. (**Annexure V**)

RESOLVED that the Syllabi of **VI Semester B.E Aeronautical Engineering** under Regulation 2018 (CBCS) for the batch of students admitted in the year of 2018-2019 be approved. (**Annexure V**)

20.8 To consider the Syllabi of **IV Semester B.E Aeronautical Engineering** under Regulation 2018 (CBCS) for the batch of students admitted in the year of 2019-2020. (**Annexure VI**)

RESOLVED that the Syllabi of **IV Semester B.E Aeronautical Engineering** under Regulation 2018 (CBCS) for the batch of students admitted in the year of 2019-2020 be approved. (**Annexure VI**)

20.9 To consider the panel of Examiners for the purpose of Evaluation. (**Annexure VII**)

RESOLVED that the panel of Examiners for the purpose of Evaluation be approved. (**Annexure VII**)

Date: 14/10/2020


Chairman
Board of Studies
Board of Studies
Faculty of Aeronautical Engineering
ADHIYAMAAN COLLEGE OF ENGINEERING (Autonomous)
Hosur - 635 109, Tamil Nadu.



ADHIYAMAAN COLLEGE OF ENGINEERING, (AUTONOMOUS)

Affiliated to Anna University, Chennai

Dr.M.G.R.Nagar, Hosur-635130

20th BOARD OF STUDIES

FACULTY OF AERONAUTICAL ENGINEERING- 20th MEETING ON 14/10/2020

@ 02:00 PM

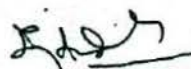
20.10 New courses introduced/newly added topics in corresponding courses in the year of 2020

Sl.No	Semester	Subject Code	Subject Name	Remarks
				The existing syllabus has been entirely reframed with the following unit modules
1	III	318AET05	Production technology	NEWLY ADDED TOPICS UNIT 3; Machining 1. Lath 2. Shaper 3. Planer 4. Universal milling machine 5. Slotter 6. Universal drilling machine 7. Cylindrical grinding machine 8. Basics of CNC machines
2	III	315AEE07	Airline Operations and managements	1. Introduction 2. Airport management 3. Air transport service 4. Airline operation 5. Logistic and cargo management
3	III	315AEE08	Pollution control in aircraft industries	1. Source and effect of air pollution 2. Dispersion of pollution 3. Air pollution control 4. Air quality management 5. Noise pollution
4	III	315AEE09	Environmental Safety managements	1. Air pollution 2. Environmental management standards 3. Environmental measures and control. 4. Preventive environmental management system 5. Environmental management system
5	III	315AEP11	Aero Modeling Laboratory	1. Construction of paper glider 2. Design and construction of glider 3. Design and Construction of water rocketry 4. Design and fabrication of aerofoil and control surface 5. Design and fabrication of fuselage 6. Study about electronic equipments used in UAV's 7. Assembly of UAV electronic equipments 8. Final assembly of UAV 9. Testing and flying of UAV 10. Basic study about Hovercraft

6	VII	718AEE06	Helicopter Aerodynamics	<ol style="list-style-type: none"> 1. Introduction to rotating wing concert 2. Hovering flight dynamics 3. Forward flight dynamics 4. Climb and descent performance 5. Ground effect missions
7	VII	718AEE07	Helicopter maintenance	<p>Newly added topics</p> <p>UNIT 2; Main rotor System</p> <ol style="list-style-type: none"> 1. Blade alignment 2. Blade sweeping 3. Vibration 4. Tracking 5. Auto rotating adjustment 6. Push pull tubes 7. Electronic balancing
8	VII	718AEE08	Airworthiness and certification	<ol style="list-style-type: none"> 1. Airworthiness and certification 2. Airworthiness and procedure 3. Health and usage monitoring 4. Aircraft maintenance 5. Flight evaluation
9	VII	718MEO02	Non-Destructive Testing and Materials	<ol style="list-style-type: none"> 1. Introduction and visual inspection techniques 2. Liquid penetrate testing and magnetic particle testing 3. Eddy current testing and acoustic emission testing 4. Ultrasonic testing 5. Radiography, comparison and selection of NDT method
10	VII	718AEE14	Industrial engineering and managements	<ol style="list-style-type: none"> 1. Introduction 2. Work Study, Incentives, Health and safety 3. Motivation and Behavior 4. Management and Behavioral Approach 5. Process Management
11	VII	718AEP11	Autonomous UAV Laboratory	<ol style="list-style-type: none"> 1. Study of list generation method 2. Analysis of LOS/BLOS 3. Study of electric systems 4. Study of ethical implication 5. Study of unmanned Aerial system Propulsion 6. Analysis of Sensing / Surveillance 7. Study of internal combustion engines 8. Analysis of on-board flight control 9. Study of turbine engine 10. Building a working model of UAV flight
12	V	518AET04	Propulsion II	<p>NEWLY ADDED TOPICS</p> <p>UNIT 5; Advanced propulsion system</p> <ol style="list-style-type: none"> 1. Electronic rocket propulsion system 2. Ion propulsion system 3. Nuclear rocket propulsion system 4. Solar sail 5. Preliminary concepts in nozzle less propulsion
13	V	518AEE09	Space flight mechanics	<ol style="list-style-type: none"> 1. Basic concepts 2. The General N-Body problem 3. Satellite injection and satellite orbit perturbation 4. Interplanetary Trajectories 5. Ballistic missile Trajectories and materials

14	V	518AEE11	Unmanned Aircraft System	<ol style="list-style-type: none"> 1. Introduction to Unmanned aerial System 2. Basic Aerodynamic of unmanned aerial system 3. Design consideration of unmanned aerial system 4. Stability and control 5. Propulsion and surveillance
15	V	518AEE13	Fundamentals of Flight	<ol style="list-style-type: none"> 1. Introduction to principles of flight 2. Introduction to airplane structures & materials 3. Power Plant used in Airplanes & Spacecrafts 4. Aircraft Systems 5. Basics of aerodynamics
16	V	518AEP12	Hypermesh laboratory	<ol style="list-style-type: none"> 1. Two dimension model meshing <ol style="list-style-type: none"> a. Mesh the given circular plate with hole. b. Mesh the given I section, L section, T section. c. Mesh the given plate with a hole and hexagon d. Mesh the given plate with a hole, Hexagon and ellipse 2. Three dimension meshing <ol style="list-style-type: none"> a. Mesh the given clip repair model b. Mesh the given Car model c. Mesh the given Aircraft model d. Mesh the given Bracket model with riveting
17	IV	418AEE08	Introduction To Space Technology	<ol style="list-style-type: none"> 1. Orbital Mechanics 2. Orbits In Three Dimensions 3. Orbital Maneuver 4. Rocket Motion In Free Space And Gravitational Field 5. Ballistic Missile Trajectories
18	IV	418AET03	Aircraft System and Instrumentation	<p>NEWLY ADDED TOPICS</p> <p>UNIT 4 ; Auxiliary System</p> <ol style="list-style-type: none"> 1. Air cycle system 2. Vapor cycle system 3. Evaporative vapor cycle system 4. Evaporative air cycle system 5. Deicing and Anti-icing system 6. Fire protection system
19	IV	418AEE09	Experimental Aerodynamic	<ol style="list-style-type: none"> 1. Wind Tunnel Testing 2. Experiments in Subsonic Wind Tunnel 3. Experiment in high Speed Tunnel 4. Measurement Techniques 5. Aircraft Structural Problems
20	IV	415AEP10	CATIA V5 R 21 Laboratory	<ol style="list-style-type: none"> 1. Scaling, rotation, translation, editing, dimensioning- Typical CAD command Structure 2. Wire Frame Modeling-Surface modeling 3. Solid Modeling 4. Advanced modeling 5. CFD/FEM Fundamentals 6. Part Design of an Aircraft Components 7. Tool Design of an Aircraft Components 8. Surface Design of Aircraft Components

21	IV	415AEP11	Production Technology Laboratory	<ol style="list-style-type: none"> 1. Lathe 2. Shaper and Slotter 3. Drilling 4. Milling 5. Grinding
22	VI	615AEE09	Flight testing	<p>NEWLY ADDED TOPICS</p> <p>UNIT 3; Radiative Heat Transfer</p> <ol style="list-style-type: none"> 1. Airspeed in flight calibration 2. Level flight performance 3. Techniques and data reduction 4. Range and endurance estimation 5. Climb performance method
23	VI	615AEE08	Boundary Layer Theory	<ol style="list-style-type: none"> 1. Navigation 2. Guidance 3. Aircraft Controls 4. Control techniques of Rockets And Missiles 5. Control Of spacecraft
24	VI	615MEO01	Applied Hydraulics and pneumatics	<ol style="list-style-type: none"> 1. Fluid Power Principles And Fundamentals 2. Hydraulic System And Components 3. Control Components, Accessories Of Hydraulic system 4. Pneumatic Systems And Components 5. Hydraulic And Pneumatic Circuits and Troubleshooting
25	VI	615AEE12	Structural Dynamics	<ol style="list-style-type: none"> 1. Force deflection properties of structures 2. Principles of dynamics 3. Natural modes of vibration 4. Energy methods 5. Approximate methods
26	VI	615AEP10	Aircraft interior design Laboratory	<ol style="list-style-type: none"> 1. aircraft sitting designing arrangement (general class)(2d) 2. aircraft sitting designing arrangement (business class)(2d) 3. Aircraft single aisle design(2d) 4. Aircraft twin aisle design(2d) 5. Aircraft seat design(3d business class) 6. Aircraft seat design(3d first class) 7. Design of laptop tray sizing of seats and civil aircraft 8. Design of window for civil aircraft 9. Design of wind shield for fighter aircraft 10. Design of wind shield for passenger aircraft
27	VIII	818AEE43	Rocket and missile	<p>NEWLY ADDED TOPICS</p> <p>UNIT 4;</p> <ol style="list-style-type: none"> 1. Rocket vector control 2. Thrust determination 3. Multistageing of rockets 4. Vehicle optimization 5. Stage Separation Dynamics 6. Separation techniques


 Chairman
 Board of Studies
 Faculty of Aeronautical Engineering
 ADHIYAMAAN COLLEGE OF ENGINEERING (Autonomous)
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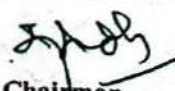


ADHIYAMAAN COLLEGE OF ENGINEERING, (AUTONOMOUS)
Affiliated to Anna University, Chennai
DEPARTMENT OF AERONAUTICAL ENGINEERING
Dr.M.G.R.NAGAR, HOSUR-635130.

20th BOARD OF STUDIES MEETING IN FACULTY IN AERONAUTICAL ENGINEERING (ONLINE MODE)

Date: 14-10-2020

Sl.No	Members name with Designation	Category	Mode online /offline
1.	Dr.J.Arivudainambi Professor & Head Department of Aeronautical Engineering Adhiyamaan College of Engineering Hosur-635130	Chairman	Online
2.	Dr. Yogesh Kumar Sinha Professor & Head, Aeronautical Engineering Rajalakshmi Engineering College Rajalakshmi Nagar Thandalam, Chennai - 602 105.	University Nominee	Online
3.	Dr. Babu. S Associate Professor Department of Mechanical Engineering PSG College of Technology Coimbatore, Tamil Nadu-641004	Academic Council Nominee	Online
4.	Dr.V.Senthil Kumar Associate Professor Department of Production Engineering, NIT Trichy, Tamil Nadu-620015		Online
5.	Infant Dean Jones D Key Account Manager – Business Development Maini Precision Products (Aerospace Division) 122, C-E, Bommasandra Industrial Area, Banglore-560099.	Industrial Expert	Online
6.	Ms.Logini C Senior Network Engineer First Advantage Global Operating Centre Pvt. Ltd, Whitefield Main Rd, Bengaluru- 560066.	Representative From Alumni	Online
7.	Dr. S V Suresh Babu Professor & Head Department of Mechanical Engineering Adhiyamaan College of Engineering-Hosur-635130	Inter Disciplinary Expert	Online
8.	Mr.P.Muthusamy /AP Department of Aeronautical Engineering Adhiyamaan College of Engineering-Hosur-635130	Faculty Representative	Online
9.	Mr.T.Anand /AP Department of Aeronautical Engineering Adhiyamaan College of Engineering-Hosur-635130	Faculty Representative	Online
10.	Ms.R.Priyanka/AP Department of Aeronautical Engineering Adhiyamaan College of Engineering- Hosur-635130	Faculty Representative	Online


Chairman
Board of Studies
Chairman
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Faculty of Aeronautical Engineering
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Hosur - 635 109, Tamil Nadu.

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ADHIYAMAAN COLLEGE OF ENGINEERING, (AUTONOMOUS)

Affiliated to Anna University, Chennai

Dr.M.G.R.Nagar, Hosur-635109

21st BOARD OF STUDIES MEETING IN FACULTY OF AERONAUTICAL ENGINEERING

MINUTES OF THE 21st MEETING

Date: 08/04/2021

The 21st Board of Studies Meeting of Aeronautical Engineering held on 07/04/2021 at 2:00 PM.

MEMBERS PRESENT

Sl.No	Name	Category
1.	Dr.J.Arivudainambi	Chairman
2.	Dr. Yogesh Kumar Sinha	Anna University Nominee
3.	Dr.V.Senthilkumar	Academic Council Nominee
4.	Dr. Babu. S	
5.	Mr. Infant Dean Jones D	Industrial Expert
6.	Ms.Logini C	Representative From Alumni
7.	Dr.S.V.Suresh Babu	Inter Disciplinary Expert
8.	Mr.P.Muthusamy	Faculty Representative
9.	Mr.T.Anand	Faculty Representative
10.	Ms.R.Priyanka	Faculty Representative

21.1 To consider the minutes of 20th Board of Studies meeting in Aeronautical Engineering held on 14/10/2020 @ 2:00 PM.

RESOLVED that the minutes of 20th Board of Studies Meeting in Aeronautical Engineering have been considered.

21.2 To consider the Syllabi of **VII Semester B.E Aeronautical Engineering** under Regulation 2018 (CBCS) for the batch of students admitted in the year of 2018-2019. (**Annexure I**)

RESOLVED that the Syllabi of **VII Semester B.E Aeronautical Engineering** under Regulation 2018 for the batch of students admitted in the year of 2018-2019 be approved. (**Annexure I**)

21.3 To consider the Syllabi of **V Semester B.E Aeronautical Engineering** under Regulation 2018 (CBCS) for the batch of students admitted in the year of 2019-2020. (**Annexure II**)

RESOLVED that the Syllabi of **V Semester B.E Aeronautical Engineering** under Regulation 2018 (CBCS) for the batch of students admitted in the year of 2019-2020 be approved. (**Annexure II**)


21.4 To consider the Syllabi of **III Semester B.E Aeronautical Engineering** under Regulation 2018 (CBCS) for the batch of students admitted in the year of 2020-2021. (**Annexure III**)

RESOLVED that the Syllabi of **III Semester B.E Aeronautical Engineering** under Regulation 2018 (CBCS) for the batch of students admitted in the year of 2020-2021 be approved. (**Annexure III**)

21.5 To consider the panel of Examiners for the purpose of Evaluation. (**Annexure IV**)

RESOLVED that the panel of Examiners for the purpose of Evaluation be approved. (**Annexure IV**)

Date: 08/04/2021


Chairman
Board of Studies



ADHIYAMAAN COLLEGE OF ENGINEERING, (AUTONOMOUS)

Affiliated to Anna University, Chennai

Dr.M.G.R.Nagar, Hosur-635130

**21th BOARD OF STUDIES
FACULTY OF AERONAUTICAL ENGINEERING- 21th MEETING ON 07/04/2021
@ 2:00 PM**

21.1 New courses introduced/newly added topics in corresponding courses in the year of 2021

Sl.No	Semester	Subject Code	Subject Name	Remark
				The existing syllabus has been entirely reframed with the following unit modules
1	VII	718AEE06	Helicopter Aerodynamic	<ol style="list-style-type: none">1. Introduction Of Rotating Wing Concept2. Hovering Flight Dynamics3. Forward Flight.Dynamics4. Climb And Decent Performance5. Ground Effects Machines
2	VII	718AEE08	Airworthiness and Certification	<ol style="list-style-type: none">1. Airworthiness and Certification2. Airworthiness and Procedure3. Aircraft Maintenance4. Healthy and Usage Monitoring5. Flight Evaluation
3	VII	718MEO02	Non Destructive Testing and Materials	<ol style="list-style-type: none">1. Introduction And Visual Inspection Techniques2. Liquid Penetrant Testing And Magnetic Testing3. Eddy Current Testing and Acoustic Emission Testing4. Ultrasonic Testing5. Radiography, Comparison And Selection Of NDT Method
4	VII	718AEE14	Industrial Engineering And Management	<ol style="list-style-type: none">1. Introduction

				<ol style="list-style-type: none"> 2. Work Study, Incentives, Health And Safety 3. Motivation And Behavior 4. Management And Behavioral Approach 5. Process Management
5	VII	718AEP11	Autonomous UAV Laboratory	<ol style="list-style-type: none"> 1. Study Of Lift Generation Method 2. Analysis Of LOS/BLOS 3. Study Of Ethical Implication 4. Analysis Of Electric System 5. Study Of Unmanned Aerial System Propulsion 6. Analysis Of On-Board Flight Control 7. Study Of Internal Combustion Engine 8. Analysis Of Sensing/ Surveillance 9. Study Of Turbine Engine 10. Building a working model of UAV Flight
	VII	718AEE11	Principles Of Management and Business concept	<p>NEWLY ADDED TOPIC</p> <p>Unit 5: Elements Of Business Activity</p> <ol style="list-style-type: none"> A. Purchasing-choosing of Suppliers B. Overview Of Stock Control C. Production-Scale of Production D. Main Features Of Job E. Mass and Batch Production System F. Marketing-Concept And Role Of Marketing G. Marketing Mix H. Channels Of Distribution I. Finance- Sources of Finance J. Assessing Business Performance

6	V	518AEE09	Space Flight Mechanics	<ol style="list-style-type: none"> 1. Basic Concepts 2. The General N-Body Problems 3. Satellite Injection And Satellite Orbit Perturbations 4. Interplanetary Trajectories 5. Ballistic Missile Trajectories And Material
7	V	518AEE11	Unmanned Aircraft System	<ol style="list-style-type: none"> 1. Introduction Of Unmanned Aircraft System 2. Basics Aerodynamic Of Unmanned Aircraft System 3. Design Consideration of Unmanned Aircraft System 4. Stability And Control 5. Propulsion And Surveillance
8	V	518AEE13	Fundamentals Of Flight	<ol style="list-style-type: none"> 1. Introduction To Principles Of Flight 2. Introduction To Airplane Structures and Material 3. Power Plants Used in Airplanes & Spacecraft 4. Aircraft Systems 5. Basics Of Aerodynamics
9	V	518AEP12	Hyper mesh Laboratory	<ol style="list-style-type: none"> 1. Two Dimensional Model Meshing <ol style="list-style-type: none"> A. Mesh The Given Circular plate with a Hole B. Mesh The Given I Section, L section And T section C. Mesh The Given Plate With a Hole and Hexagon D. Mesh The Given Plate With a Hole, Hexagon and Ellipse 2. Three Dimensional Meshing

				<ul style="list-style-type: none"> A. Mesh The Given clip Repair Model B. Mesh The Given car Model C. Mesh The Given Aircraft Model D. Mesh The Given Bracket Model with Riveting
	V	518AEE08	Aerospace Quality Assurance	<p>NEWLY ADDED TOPIC</p> <p>Unit 1:Quality Concepts And Assurance</p> <ul style="list-style-type: none"> A. Concept And Definition B. Design Specifications C. Quality Manufacture In Conformance With Design Applications D. Role Of Quality Assurance During usage Of Aircraft E. Repair Of Aircraft and Its Aggregates F. Concession And Deviations G. Production Permits
10	III	318AEE07	Airline And Airport Operation	<ol style="list-style-type: none"> 1. Introduction 2. Airport Management 3. Air transport Services 4. Airline Operation 5. Logistics And Air Cargo Management
11	III	318AEE08	Pollution Control in Aircraft Industries	<ol style="list-style-type: none"> 1. Sources And Effects Of Air Pollutants 2. Dispersion Of Pollutants 3. Air Pollution Control 4. Air Quality Management 5. Noise Pollution
12	III	318AEE09	Environmental Safety Management	<ol style="list-style-type: none"> 1. Air Pollution 2. Environmental Management Standards 3. Environmental Measurement And Control 4. Preventive Environmental Management

				<p>1.2 Taper Turning using Compound Rest</p> <p>1.3 Taper Turning using Taper Turning Attachment</p> <p>1.4 Single Start V thread Cutting and Knurling</p> <p>1.5 Boring and Internal Thread Cutting</p> <p>2. Shaper and Slotter</p> <p>2.1 Machining a V block (in a Shaper)</p> <p>2.2 Machining a Hexagonal shape (in a Shaper)</p> <p>2.3 Machining Internal Keyway (in a Slotter)</p> <p>3. Drilling</p> <p>3.1 Drilling 4 or 6 holes at a given pitch circle on a plate</p> <p>3.2 Drilling, Reaming and Tapping</p> <p>4 Milling</p> <p>4.1 Plain Milling Exercise</p> <p>4.2 Gear Milling Exercise</p> <p>5 Grinding</p> <p>Cylindrical Grinding Exercise</p>
	IV	418AEE10	Mechanics of Machine	<p>NEWLY ADDED TOPIC</p> <p>Unit 5: Vibration</p> <p>A. Free, Forced And Damped Vibrations Of Single Degree Of freedom System</p> <p>B. Forced Transmitted to Supports</p> <p>C. Vibration Isolation</p> <p>D. Vibration Absorption</p> <p>E. Torsional Vibration Of shaft</p> <p>F. Single and Multi-Rotor systems</p> <p>G. Geared Shaft</p> <p>H. Critical speed Of Shaft</p>
<p>Feedback obtained about curriculum and syllabus from stakeholders (Faculty, Students, Alumni and Employers) also discussed and concluded.</p>				

Date: 05/11/2019


Chairman
Board of Studies

Faculty of Aeronautical Engineering
ADHIYAMAAN COLLEGE OF ENGINEERING (Autonomous)
Hosur - 635 109, Tamil Nadu.



ADHIYAMAAN COLLEGE OF ENGINEERING, (AUTONOMOUS)
Affiliated to Anna University, Chennai
DEPARTMENT OF AERONAUTICAL ENGINEERING
Dr.M.G.R.NAGAR, HOSUR-635130.

21st BOARD OF STUDIES MEETING IN FACULTY IN AERONAUTICAL ENGINEERING (ONLINE MODE)

Date: 07-04-2021

Sl.No	Members name with Designation	Category	Mode online /offiline
1.	Dr.J.Arivudainambi Professor & Head Department of Aeronautical Engineering Adhiyamaan College of Engineering Hosur-635130	Chairman	Online
2.	Dr. Yogesh Kumar Sinha Professor & Head, Aeronautical Engineering Rajalakshmi Engineering College Rajalakshmi Nagar Thandalam, Chennai - 602 105.	University Nominee	Online
3.	Dr. Babu. S Associate Professor Department of Mechanical Engineering PSG College of Technology Coimbatore, Tamil Nadu-641004	Academic Council Nominee	Online
4.	Dr.V.Senthil Kumar Associate Professor Department of Production Engineering, NIT Trichy, Tamil Nadu-620015		Online
5.	Infant Dean Jones D Key Account Manager – Business Development Maini Precision Products (Aerospace Division) 122, C-E, Bommasandra Industrial Area, Banglore-560099.	Industrial Expert	Online
6.	Ms.Logini C Senior Network Engineer First Advantage Global Operating Centre Pvt. Ltd, Whitefield Main Rd, Bengaluru- 560066.	Representative From Alumni	Online
7.	Dr. S V Suresh Babu Professor & Head Department of Mechanical Engineering Adhiyamaan College of Engineering-Hosur-635130	Inter Disciplinary Expert	Online
8.	Mr.P.Muthusamy /AP Department of Aeronautical Engineering Adhiyamaan College of Engineering-Hosur-635130	Faculty Representative	Online
9.	Mr.T.Anand /AP Department of Aeronautical Engineering Adhiyamaan College of Engineering-Hosur-635130	Faculty Representative	Online
10.	Ms.R.Priyanka/AP Department of Aeronautical Engineering Adhiyamaan College of Engineering- Hosur-635130	Faculty Representative	Online


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ANAND T.



logini aero



Priya Ragu



S.V.SURESH Babu



Yogesh Kumar Sir

Call overlay showing 'You' and 'Nambi +6' with video thumbnails and mute icons.



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Dr.M.G.R.Nagar, Hosur-635130

22nd BOARD OF STUDIES MEETING IN FACULTY OF AERONAUTICAL ENGINEERING

MINUTES OF THE 22nd MEETING

Date: 09/10/2021

The 22nd Board of Studies Meeting of Aeronautical Engineering held on 09/10/2021 at 2:00 PM.

MEMBERS PRESENT

Sl.No	Name	Category
1.	Dr.J.Arivudainambi	Chairman
2.	Dr. Yogesh Kumar Sinha	Anna University Nominee
3.	Dr.V.Senthilkumar	Academic Council Nominee
4.	Dr. Babu. S	
5.	Mr. Infant Dean Jones D	Industrial Expert
6.	Ms.Logini C	Representative From Alumni
7.	Dr.S.V.Suresh Babu	Inter Disciplinary Expert
8.	Mr.P.Muthusamy	Faculty Representative
9.	Mr.T.Anand	Faculty Representative
10.	Ms.R.Priyanka	Faculty Representative

22.1 To consider the minutes of 21st Board of Studies meeting in Aeronautical Engineering held on 07/04/2021 @ 2:00 PM.

RESOLVED that the minutes of 21st Board of Studies Meeting in Aeronautical Engineering have been considered.

22.2 To consider the Syllabi of **VIII Semester B.E Aeronautical Engineering** under Regulation 2018 (CBCS) for the batch of students admitted in the year of 2018-2019. (**Annexure I**)

RESOLVED that the Syllabi of **VIII Semester B.E Aeronautical Engineering** under Regulation 2018 for the batch of students admitted in the year of 2018-2019 be approved. (**Annexure I**)

22.3 To consider the Syllabi of **VI Semester B.E Aeronautical Engineering** under Regulation 2018 (CBCS) for the batch of students admitted in the year of 2019-2020. (**Annexure II**)

RESOLVED that the Syllabi of **VI Semester B.E Aeronautical Engineering** under Regulation 2018 (CBCS) for the batch of students admitted in the year of 2019-2020 be approved. (**Annexure II**)

22.4 To consider the Syllabi of **IV Semester B.E Aeronautical Engineering** under Regulation 2018 (CBCS) for the batch of students admitted in the year of 2020-2021. (**Annexure III**)

RESOLVED that the Syllabi of **IV Semester B.E Aeronautical Engineering** under Regulation 2018 (CBCS) for the batch of students admitted in the year of 2020-2021 be approved. (**Annexure III**)

22.5 To consider the panel of Examiners for the purpose of Evaluation. (**Annexure IV**)

RESOLVED that the panel of Examiners for the purpose of Evaluation be approved. (**Annexure IV**)

Date: 09/10/2021


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**22nd BOARD OF STUDIES
FACULTY OF AERONAUTICAL ENGINEERING- 22nd MEETING ON 09/10/2022
@ 2:00 PM**

Sl.No	Semester	Subject Code	Subject Name	Remark
				The existing syllabus has been entirely reframed with the following unit modules
1	VIII	818AEE04	Entrepreneurship Development Management & IPR	<ol style="list-style-type: none"> 1. Introduction of Entrepreneurship 2. Entrepreneurial Development Agencies 3. Project Management 4. Introduction to Intellectual Property 5. Patent Rights
2	VIII	818AEE06	Human Values and Professional Ethics	<ol style="list-style-type: none"> 1. Human Values 2. Engineering Ethics 3. Engineering as Social Experimentation 4. Safety Responsibilities and Rights 5. Global Issues
3	VIII	818AEE09	Air Transportation and Aircraft Maintenance Management	<ol style="list-style-type: none"> 1. Introduction 2. Airline Economics 3. Principle of Airline Scheduling 4. Aircraft Reliability 5. Technology in Aircraft Maintenance
	VII	818AEE09	Computer Aided Design/ Computer Aided Manufacture	<p>NEWLY ADDED TOPICS</p> <p>Unit 2: Geometric Modeling</p> <ol style="list-style-type: none"> A. Requirements B. Geometric Models C. Geometric Construction Model D. Curve Representation method

				E. Surface Representation Methods F. Modeling Facilities Desired
4	VI	618AEE08	Boundary layer Theory	<ol style="list-style-type: none"> 1. Navigation 2. Guidance 3. Aircraft Controls 4. Control Technique of Rockets and Missiles 5. Control of Space crafts
5	VI	618MEO01	Applied Hydraulics and Pneumatics	<ol style="list-style-type: none"> 1. Fluid Power Principles and Fundamentals 2. Hydraulics Systems and Components 3. Control Components, Accessories of Hydraulic System 4. Pneumatic System and Components 5. Hydraulic and Pneumatic circuit and Troubleshooting
6	VI	618AEE12	Structural Dynamics	<ol style="list-style-type: none"> 1. Force Deflection Properties of Structures 2. Principles of Dynamics 3. Natural Modes of Vibration 4. Energy Methods 5. Approximate Methods
7	VI	618AEP10	Aircraft Interior Design Laboratory	<ol style="list-style-type: none"> 1. Aircraft Seating Design Arrangements (General Class) (2D) 2. Aircraft Seating Design Arrangement (Business Class) (2D) 3. Aircraft Single Aisle Design (2D) 4. Aircraft Twin Aisle Design (2D) 5. Aircraft Seat Design (3D Business Class) 6. Aircraft Seat Design (3D First Class) 7. Design of Laptop Tray sizing for seating in Civil Aircrafts 8. Design of Windows for Civil Aircraft

				<p>9. Design of Wind Shield for Fighter Aircraft (Select anyone Airplane)</p> <p>10. Design of Wind Shield for Passenger Aircraft (Select any one Airplane)</p>
	VI	618AEE11	Space Flight Navigation And Guidance Control	<p>NEWLY ADDED TOPICS</p> <p>Unit 5: Control Of Spacecraft</p> <p>A. Launch Of Satellite Spacecraft</p> <p>B. Terminal Control Of Spacecraft Attitude</p> <p>C. Optimal Single Axis Rotation Of Spacecraft</p> <p>D. Multi Axis Rotation Maneuvers Of Spacecraft</p> <p>E. Spacecraft Control Torques</p> <p>F. Rocket Thrusters</p> <p>G. Reaction Wheels</p>
8	IV	418AEE06	Metal Joining Process and NDT	<p>1. Basic of Metal Joining Process</p> <p>2. Conventional Metal Joining Process</p> <p>3. Advanced Metal Joining Process</p> <p>4. Material Testing</p> <p>5. Non Destructive Testing</p>
9	IV	418AEE08	Introduction to Space Technology	<p>1. Orbital Mechanics</p> <p>2. Orbits in Three Dimensions</p> <p>3. Orbital Maneuver</p> <p>4. Rocket Motion in Free Space and Gravitational Field</p> <p>5. Ballistic Missile Trajectories</p>
10	IV	418AEE09	Experimental Aerodynamics	<p>1. Wind Tunnel Testing</p> <p>2. Experiments in Subsonic Wind Tunnel</p> <p>3. Experiments in High Speed Tunnels</p> <p>4. Measurement Techniques</p> <p>5. Aircraft Special Problems</p>
11	IV	418AEP10	CATIA V5 R 21 Laboratory	<p>1. Scaling, rotation, translation, editing, dimensioning-Typical CAD command Structure</p> <p>2. Wire Frame Modeling-Surface modeling</p> <p>3. Solid Modeling</p>

				<ul style="list-style-type: none"> 4. Advanced modeling 5. CFD/FEM Fundamentals 6. Part Design of an Aircraft Components 7. Tool Design of an Aircraft Components Surface Design of Aircraft Components
12	IV	418AEP11	Production Technology Laboratory	<ul style="list-style-type: none"> 1. Lathe <ul style="list-style-type: none"> 1.1 Facing, Plain Turning, Step Turning 1.2 Taper Turning using Compound Rest 1.3 Taper Turning using Taper Turning Attachment 1.4 Single Start V thread Cutting and Knurling 1.5 Boring and Internal Thread Cutting 2. Shaper and Slotter <ul style="list-style-type: none"> 2.1 Machining a V block (in a Shaper) 2.2 Machining a Hexagonal shape (in a Shaper) 2.3 Machining Internal Keyway (in a Slotter) 3. Drilling <ul style="list-style-type: none"> 3.1 Drilling 4 or 6 holes at a given pitch circle on a plate 3.2 Drilling, Reaming and Tapping 4 Milling <ul style="list-style-type: none"> 4.1 Plain Milling Exercise 4.2 Gear Milling Exercise 5 Grinding <ul style="list-style-type: none"> Cylindrical Grinding Exercise
	IV	418AEE07	Aerospace Material	<p>NEWLY ADDED TOPICS</p> <p>Unit 5: Super Alloys And Other Materials</p> <ul style="list-style-type: none"> A. Iron Base B. Nickel Base and Cobalt Base Super Alloys C. Composition Control D. Solid Solution Strengthening

				E. Precipitation Hardening by Gamma Prime F. Grain Boundary Strengthening G. TCP phase H. Brittlemet I. High Temperature Ceramics
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Date: 09/10/2021



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
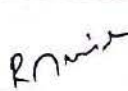
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Dr.M.G.R.NAGAR, HOSUR-635109.

22nd BOARD OF STUDIES MEETING IN FACULTY IN AERONAUTICAL ENGINEERING

Date: 09-10-2021

Sl.No	Members name with Designation	Category	Signature
1.	Dr.J.Arivudainambi Professor & Head Department of Aeronautical Engineering Adhiyamaan College of Engineering Hosur-635109	Chairman	---Online--
2.	Dr. Yogesh Kumar Sinha Professor & Head, Aeronautical Engineering Rajalakshmi Engineering College Rajalakshmi Nagar Thandalam, Chennai - 602 105.	University Nominee	---Online--
3.	Dr. Babu. S Associate Professor Department of Mechanical Engineering PSG College of Technology Coimbatore, Tamil Nadu-641004	Academic Council Nominee	---Online--
4.	Dr.V.Senthil Kumar Associate Professor Department of Production Engineering, NIT Trichy, Tamil Nadu-620015		---Online--
5.	Infant Dean Jones D Key Account Manager – Business Development Maini Precision Products (Aerospace Division) 122, C-E, Bommasandra Industrial Area, Banglore-560099.	Industrial Expert	---Online--
6.	Ms.Logini C Senior Network Engineer First Advantage Global Operating Centre Pvt. Ltd, Whitefield Main Rd, Bengaluru- 560066.	Representative From Alumni	---Online--
7.	Dr. S V Suresh Babu Professor & Head Department of Mechanical Engineering Adhiyamaan College of Engineering-Hosur-635109.	Inter Disciplinary Expert	---Online--
8.	Mr.P.Muthusamy /AP Department of Aeronautical Engineering Adhiyamaan College of Engineering-Hosur-635109.	Faculty Representative	
9.	Mr.T.Anand /AP Department of Aeronautical Engineering Adhiyamaan College of Engineering-Hosur-635109	Faculty Representative	
10.	Ms.R.Priyanka /AP Department of Aeronautical Engineering Adhiyamaan College of Engineering- Hosur-635109	Faculty Representative	



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22nd BOARD OF STUDIES MEETING IN FACULTY OF AERONAUTICAL ENGINEERING HELD ON
09/10/2021 (Online)

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Nambi Arivudai
Meeting host

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Nambi Arivudai
Meeting host

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Dr Babu S - PSGCT

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Priya Ragu

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S.V.SURESH Babu

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V Senthilkumar

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V Senthilkumar

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Yogesh Kumar Sir



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23rd BOARD OF STUDIES MEETING IN FACULTY OF AERONAUTICAL ENGINEERING

MINUTES OF THE 23rd MEETING

Date: 20/08/2022

The 23rd Board of Studies Meeting of Aeronautical Engineering held on 20/08/2022 @ 11:00 AM.

MEMBERS PRESENT

Sl.No	Name	Category
1.	Dr.J.Arivudainambi	Chairman
2.	Dr. Yogesh Kumar Sinha	Anna University Nominee
3.	Dr.V.Senthilkumar	Academic Council Nominee
4.	Dr. Babu. S	
5.	Mr. Infant Dean Jones D	Industrial Expert
6.	Ms.Logini C	Representative From Alumni
7.	Dr.S.V.Suresh Babu	Inter Disciplinary Expert
8.	Mr.P.Muthusamy	Faculty Representative
9.	Mr.K.Hariharan	Faculty Representative
10.	Ms.M.Nandhini	Faculty Representative

23.1 To consider the minutes of 21st Board of Studies meeting in Aeronautical Engineering held on 09/10/2021 @ 2:00 PM.

RESOLVED that the minutes of 20th Board of Studies Meeting in Aeronautical Engineering have been considered.

23.2 To consider the Syllabi of VII Semester B.E Aeronautical Engineering under Regulation 2018 (CBCS) for the batch of students admitted in the year of 2019-2020. (Annexure I)

RESOLVED that the Syllabi of VII Semester B.E Aeronautical Engineering under Regulation 2018 for the batch of students admitted in the year of 2019-2020 be approved. (Annexure I)

- 23.3 To consider the Syllabi of V Semester B.E Aeronautical Engineering under Regulation 2018 (CBCS) for the batch of students admitted in the year of 2020-2021. (Annexure II)

RESOLVED that the Syllabi of V Semester B.E Aeronautical Engineering under Regulation 2018 (CBCS) for the batch of students admitted in the year of 2020-2021 be approved. (Annexure II)

- 23.4 To consider the Syllabi of III Semester B.E Aeronautical Engineering under Regulation 2018 (CBCS) for the batch of students admitted in the year of 2021-2022. (Annexure III)

RESOLVED that the Syllabi of III Semester B.E Aeronautical Engineering under Regulation 2018 (CBCS) for the batch of students admitted in the year of 2021-2022 be approved. (Annexure III)

- 23.5 To consider the panel of Examiners for the purpose of Evaluation. (Annexure IV)

RESOLVED that the panel of Examiners for the purpose of Evaluation be approved. (Annexure IV)

Updates made in VIII semester curriculum/Syllabus during 23rd BoS

- As per the suggestion given by the Board Members, changes are made in the following Professional Core & Professional Elective subjects in VIII Semester B.E Aeronautical Engineering under Regulation 2018 (CBCS) for the batch of students admitted during the period 2019-2023.

Newly added topics:

ROCKET AND MISSILES (818AET01):

Unit – II Aerodynamics of rockets and missiles

Topics included :Lateral & Longitudinal Aerodynamic Moment of a Rocket – lift and Drag forces.

Unit - III Rocket motion in free space and gravitational field

Topics included : Homogeneous Gravitational Fields – description of Vertical, Inclined and Gravity Turn Trajectories .

COMPUTER INTEGRATED MANUFACTURING (818AEE07):

Unit –II Production and process planning

Topics included : Shop Floor Control-Inventory Control – Brief on Manufacturing Resource Planning-II (MRP-II) & Enterprise Resource Planning (ERP).

Unit - V Flexible manufacturing system and vehicle guidance

Topics included : Automated Guided Vehicle System (AGVS) – AGVS Application – Vehicle Guidance technology – Vehicle Management & Safety

Special Approvals


- As per the suggestion given by the Board Members, changes are made in the following **One Credit Courses VI and IV Semester** in B.E Aeronautical Engineering under **R2018 (CBCS)** for the batch of students.

One Credit Course:

- Introduced **Aerospace Technical Documentatlon and Gas Turbine Service Engineering** - To create more Employment opportunities for third year students to learn, the Aerospace Technical Documentation and Publication at **Aerotlcs Technologies -Bangalore**.
- Introduced **Aircraft Design and Rocketry by using (Catia-V5, Creo, CFD)**—As value added course for second year students to learn, design and analysis of aircraft components for production thru experts.

Certification Course:

- **Drone Piloting and Safety Awareness**
- **Satellite and Communication**
- **Personality Development Event**


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22nd BOARD OF STUDIES
FACULTY OF AERONAUTICAL ENGINEERING- 22nd MEETING ON 09/10/2022
@ 2:00 PM

Sl.No	Semester	Subject Code	Subject Name	Remark
				The existing syllabus has been entirely reframed with the following unit modules
1	VIII	818AEE04	Entrepreneurship Development Management & IPR	<ol style="list-style-type: none">1. Introduction of Entrepreneurship2. Entrepreneurial Development Agencies3. Project Management4. Introduction to Intellectual Property5. Patent Rights
2	VIII	818AEE06	Human Values and Professional Ethics	<ol style="list-style-type: none">1. Human Values2. Engineering Ethics3. Engineering as Social Experimentation4. Safety Responsibilities and Rights5. Global Issues
3	VIII	818AEE09	Air Transportation and Aircraft Maintenance Management	<ol style="list-style-type: none">1. Introduction2. Airline Economics3. Principle of Airline Scheduling4. Aircraft Reliability5. Technology in Aircraft Maintenance
	VIII	818AEE09	Computer Aided Design/ Computer Aided Manufacture	NEWLY ADDED TOPICS Unit 2: Geometric Modeling A. Requirements B. Geometric Models C. Geometric Construction Model D. Curve Representation method

				E. Surface Representation Methods F. Modeling Facilities Desired
4	VI	618AEE08	Boundary layer Theory	<ol style="list-style-type: none"> 1. Navigation 2. Guidance 3. Aircraft Controls 4. Control Technique of Rockets and Missiles 5. Control of Space crafts
5	VI	618MEO01	Applied Hydraulics and Pneumatics	<ol style="list-style-type: none"> 1. Fluid Power Principles and Fundamentals 2. Hydraulics Systems and Components 3. Control Components, Accessories of Hydraulic System 4. Pneumatic System and Components 5. Hydraulic and Pneumatic circuit and Troubleshooting
6	VI	618AEE12	Structural Dynamics	<ol style="list-style-type: none"> 1. Force Deflection Properties of Structures 2. Principles of Dynamics 3. Natural Modes of Vibration 4. Energy Methods 5. Approximate Methods
7	VI	618AEP10	Aircraft Interior Design Laboratory	<ol style="list-style-type: none"> 1. Aircraft Seating Design Arrangements(General Class)(2D) 2. Aircraft Seating Design Arrangement (Business Class) (2D) 3. Aircraft Single Aisle Design (2D) 4. Aircraft Twin Aisle Design (2D) 5. Aircraft Seat Design (3D Business Class) 6. Aircraft Seat Design (3D First Class) 7. Design of Laptop Tray sizing for seating in Civil Aircrafts 8. Design of Windows for Civil Aircraft

				<ul style="list-style-type: none"> 9. Design of Wind Shield for Fighter Aircraft (Select anyone Airplane) 10. Design of Wind Shield for Passenger Aircraft (Select any one Airplane)
	VI	618AEE11	Space Flight Navigation And Guidance Control	<p>NEWLY ADDED TOPICS</p> <p>Unit 5: Control Of Spacecraft</p> <ul style="list-style-type: none"> A. Launch Of Satellite Spacecraft B. Terminal Control Of Spacecraft Attitude C. Optimal Single Axis Rotation Of Spacecraft D. Multi Axis Rotation Maneuvers Of Spacecraft E. Spacecraft Control Torques F. Rocket Thrusters G. Reaction Wheels
8	IV	418AEE06	Metal Joining Process and NDT	<ul style="list-style-type: none"> 1. Basic of Metal Joining Process 2. Conventional Metal Joining Process 3. Advanced Metal Joining Process 4. Material Testing 5. Non Destructive Testing
9	IV	418AEE08	Introduction to Space Technology	<ul style="list-style-type: none"> 1. Orbital Mechanics 2. Orbits in Three Dimensions 3. Orbital Maneuver 4. Rocket Motion in Free Space and Gravitational Field 5. Ballistic Missile Trajectories
10	IV	418AEE09	Experimental Aerodynamics	<ul style="list-style-type: none"> 1. Wind Tunnel Testing 2. Experiments in Subsonic Wind Tunnel 3. Experiments in High Speed Tunnels 4. Measurement Techniques 5. Aircraft Special Problems
Value Added Courses are Recommended				
11	IV	418AEP10	CATIA V5 R 21 Laboratory	<ul style="list-style-type: none"> 1. Scaling, rotation, translation, editing, dimensioning-Typical CAD command Structure

				<ul style="list-style-type: none"> 2. Wire Frame Modeling-Surface modeling 3. Solid Modeling 4. Advanced modeling 5. CFD/FEM Fundamentals 6. Part Design of an Aircraft Components 7. Tool Design of an Aircraft Components Surface Design of Aircraft Components
12	IV	418AEP11	Production Technology Laboratory	<ul style="list-style-type: none"> 1. Lathe <ul style="list-style-type: none"> 1.1 Facing, Plain Turning, Step Turning 1.2 Taper Turning using Compound Rest 1.3 Taper Turning using Taper Turning Attachment 1.4 Single Start V thread Cutting and Knurling 1.5 Boring and Internal Thread Cutting 2. Shaper and Slotter <ul style="list-style-type: none"> 2.1 Machining a V block (in a Shaper) 2.2 Machining a Hexagonal shape (in a Shaper) 2.3 Machining Internal Keyway (in a Slotter) 3. Drilling <ul style="list-style-type: none"> 3.1 Drilling 4 or 6 holes at a given pitch circle on a plate 3.2 Drilling, Reaming and Tapping 4 Milling <ul style="list-style-type: none"> 4.1 Plain Milling Exercise 4.2 Gear Milling Exercise 5 Grinding <ul style="list-style-type: none"> Cylindrical Grinding Exercise
	IV	418AEE07	Aerospace Material	<p>NEWLY ADDED TOPICS</p> <p>Unit 5: Super Alloys And Other Materials</p> <ul style="list-style-type: none"> A. Iron Base B. Nickel Base and Cobalt Base Super Alloys C. Composition Control

				D. Solid Solution Strengthening E. Precipitation Hardening by Gamma Prime F. Grain Boundary Strengthening G. TCP phase H. Brittleness I. High Temperature Ceramics
Feedback obtained about curriculum and syllabus from stakeholders (Faculty, Students, Alumni and Employers) also discussed and concluded.				

Date: 09/10/2022




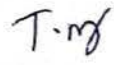

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Dr.M.G.R.NAGAR, HOSUR-635109.

22nd BOARD OF STUDIES MEETING IN FACULTY IN AERONAUTICAL ENGINEERING

Date: 09-10-2021

Sl.No	Members name with Designation	Category	Signature
1.	Dr.J.Arivudainambi Professor & Head Department of Aeronautical Engineering Adhiyamaan College of Engineering Hosur-635109	Chairman	---Online--
2.	Dr. Yogesh Kumar Sinha Professor & Head, Aeronautical Engineering Rajalakshmi Engineering College Rajalakshmi Nagar Thandalam, Chennai - 602 105.	University Nominee	---Online--
3.	Dr. Babu. S Associate Professor Department of Mechanical Engineering PSG College of Technology Coimbatore, Tamil Nadu-641004	Academic Council Nominee	---Online--
4.	Dr.V.Senthil Kumar Associate Professor Department of Production Engineering, NIT Trichy, Tamil Nadu-620015		---Online--
5.	Infant Dean Jones D Key Account Manager – Business Development Maini Precision Products (Aerospace Division) 122, C-E, Bommasandra Industrial Area, Bangalore-560099.	Industrial Expert	---Online--
6.	Ms.Logini C Senior Network Engineer First Advantage Global Operating Centre Pvt. Ltd, Whitefield Main Rd, Bengaluru- 560066.	Representative From Alumni	---Online--
7.	Dr. S V Suresh Babu Professor & Head Department of Mechanical Engineering Adhiyamaan College of Engineering-Hosur-635109.	Inter Disciplinary Expert	---Online--
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9.	Mr.T.Anand /AP Department of Aeronautical Engineering Adhiyamaan College of Engineering-Hosur-635109	Faculty Representative	
10.	Ms.R.Priyanka /AP Department of Aeronautical Engineering Adhiyamaan College of Engineering- Hosur-635109	Faculty Representative	



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22nd BOARD OF STUDIES MEETING IN FACULTY OF AERONAUTICAL ENGINEERING HELD ON
09/10/2021 (Online)

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Nambi Arivudai
Meeting host

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Nambi Arivudai
Meeting host

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Dean Jones

🗨️ ⋮



Dr Babu S - PSGCT

🗨️ ⋮



logini aero

🗨️ ⋮



Priya Ragu

🗨️ ⋮



S.V.SURESH Babu

🗨️ ⋮



V Senthilkumar

🗨️ ⋮



V Senthilkumar

