



SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY

(DEEMED TO BE UNIVERSITY)

Accredited with "A" Grade by NAAC

Jeppiaar Nagar, Rajiv Gandhi Salai, Chennai - 600 119.






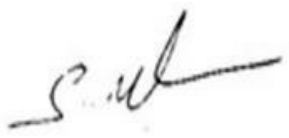
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SCHOOL OF MECHANICAL ENGINEERING
DEPARTMENT OF AERONAUTICAL ENGINEERING
BOARD OF STUDIES MEETING HELD ON 21.12.2016

Members present:

External Members	Signature	Internal Members	Signature
Dr.Paramasivam, Professor, Madras Institute of Technology, Chennai		Dr.S.Prakash, Dean/Faculty of Mechanical	
Er. James Michael Amulu, Senior Product, Development Leader, SAP, Bangalore.		Dr.J.Alexander Head/Aeronautical, Engineering	
		Dr.A.Anderson, Associate Professor/ Aeronautical Engineering	
		Mr. S. Manigandan, Assistant Professor/ Aeronautical Engineering, Aeronautical Engineering	



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Minutes of the Board of Studies meeting

Board of Studies meeting for the Department of Aeronautical Engineering was held on 21st Dec 2016 in Aero CAD Lab with the following agenda:

1. Revision of Course "SAE1102 Aircraft Production Techniques"
2. Revision of Course "SAE1203 Introduction to Aerodynamics"

Welcome Address

At the outset, the Chair Person welcomed the members of BoS and placed the agenda for the deliberations of the members. The following deliberations were made as per the items of the circulated agenda.

Agenda item # 1

Modifications proposed for 2017 batch Bachelors of Engineering– Aeronautical Engineering students in SAE1102 – Aircraft Production Techniques.

Head of the department informed that the department teams have been working on the modification of curriculum and in this direction the following changes were made on SAE1102 – Aircraft Production Techniques.

(a)**Removal of the following topics in Unit I-** Tools, Classification, Basic, detail and assembly tools - Interchangeability. Hand tools - precision instruments - special tools and equipment in an airplane maintenance shop - identification terminology -specification and correct use of various aircraft hardware i.e., nuts, bolts, rivets and screws etc., - American and British system of specification - threads, gears, bearings etc., Drills, taps and reamers. Identification of all types of fluid line fittings. Materials, metallic and non-metallic.



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(b)**Inclusion of the following topics in Unit I:** Common aircraft tools, vice, hammers, chisels, files, hacksaw, marking tools-surface plate, scribe, punch, v - block, angle plate, tri-square; marking out; tools-inspection, maintenance & safety precautions. Linear measurements – non precision & precision instruments; Angular measurements - non precision & precision instruments; Taper measurements, surface measurements & Gauges.

Resolutions: The External members considered the revision made and discussed regarding the revision. Dr. J. Alexander pointed out that the removal of topics was necessary. These topics are general tools utilized for common engineering applications.

Agenda item # 2

Modifications proposed for 2017 batch Bachelors of Engineering– Aeronautical Engineering students in SAE1203 – Introduction to Aerodynamics.

Head of the department informed that the department teams have been working on the modification of curriculum and in this direction the following changes were made on SAE1203 – Introduction to Aerodynamics.

(a)**Removal of the following topics in Unit IV-** Evolution of Lift, Drag and Moment, types of wing planforms, aerodynamic characteristics of Airfoils, concept of boundary layer, Mach Number, Maneuvers.

(b)**Inclusion of the following topics in Unit IV:** Boundary layer theory-boundary layer development on a flat plate, displacement thickness, momentum thickness, Energy thickness, momentum integral equation, drag on flat plate- Nature of turbulence, Separation of flow over bodies- streamlined and bluff bodies, Lift and Drag on cylinder and Aerofoil.



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Resolutions: The External members considered the revision made and discussed regarding the revision. Dr. J. Alexandar pointed out that the removal of topics was necessary. These topics are covered in Fundamentals of Aeronautical Engineering.

This initiative is appreciated by BoS members and after a discussion about the contents of the syllabus; the revised course was approved for inclusion as a core course in the Curriculum.

BoS members accepted the changes and approved the syllabus.

The revised syllabus of the course is enclosed in Annexure-1.

Vote of Thanks

Dr.Alexander thanked the expert members for accepting the invitation for attending the BoS meeting. He thanked them for their valuable suggestions on the agenda items presented. He also thanked Dr.S.Prakash, Dean/Chair and Dr.A.Anderson, Associate Professor for their contribution towards the conduct of this BoS meeting.

Dean/CHAIR



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Agenda item # 1 Modifications proposed for SAE1102 – Aircraft Production Techniques.

S.No.	Existing Syllabus R2016	Corrected Syllabus
1	<p>UNIT-I AIRCRAFT GENERAL ENGINEERING TOOLS & MEASUREMENTS 9 Hrs.</p> <p>Tools, Classification, Basic, detail and assembly tools - Interchangeability. Hand tools - precision instruments - special tools and equipment in an airplane maintenance shop - identification terminology -specification and correct use of various aircraft hardware i.e., nuts, bolts, rivets and screws etc., - American and British system of specification - threads, gears, bearings etc., Drills, taps and reamers. Identification of all types of fluid line fittings. Materials, metallic and non-metallic.</p>	<p>UNIT-I AIRCRAFT GENERAL ENGINEERING TOOLS & MEASUREMENTS 9 Hrs.</p> <p>Common aircraft tools, vice, hammers, chisels, files, hacksaw, marking tools- surface plate, scribe, punch, v - block, angle plate, tri-square; marking out; tools- inspection, maintenance & safety precautions. Linear measurements - non precision & precision instruments; Angular measurements - non precision & precision instruments; Taper measurements, surface measurements & Gauges</p>

Agenda item # 2 Modifications proposed for SAE1203 – Introduction to Aerodynamics

S.No.	Existing Syllabus R2016	Corrected Syllabus
1	<p>UNIT IV FLUID FLOW OVER BODIES 11 Hrs.</p> <p>Evolution of Lift, Drag and Moment, types of wing planforms, aerodynamic characteristics of Airfoils, concept of boundary layer, Mach Number, Maneuvers.</p>	<p>UNIT IV FLUID FLOW OVER BODIES 11 Hrs.</p> <p>Boundary layer theory-boundary layer development on a flat plate, displacement thickness, momentum thickness, Energy thickness, momentum integral equation, drag on flat plate- Nature of turbulence, Separation of flow over bodies- stream lined and bluff bodies, Lift and Drag on cylinder and Aero foil</p>