



VALLURUPALLI NAGESWARA RAO VIGNANA JYOTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY

An Autonomous Institute, NAAC Accredited with 'A++' Grade
NBA Accredited for CE, EEE, ME, ECE, CSE, EIE, IT B.Tech Courses

Approved by AICTE, New Delhi, Affiliated to JNTUH

Recognized as "College with Potential for Excellence" by UGC

Vignana Jyothi Nagar, Pragathi Nagar, Nizampet (S.O), Hyderabad 500 090, TS, India.

Telephone No: 040-2304 2758/59/60, Fax: 040-23042761

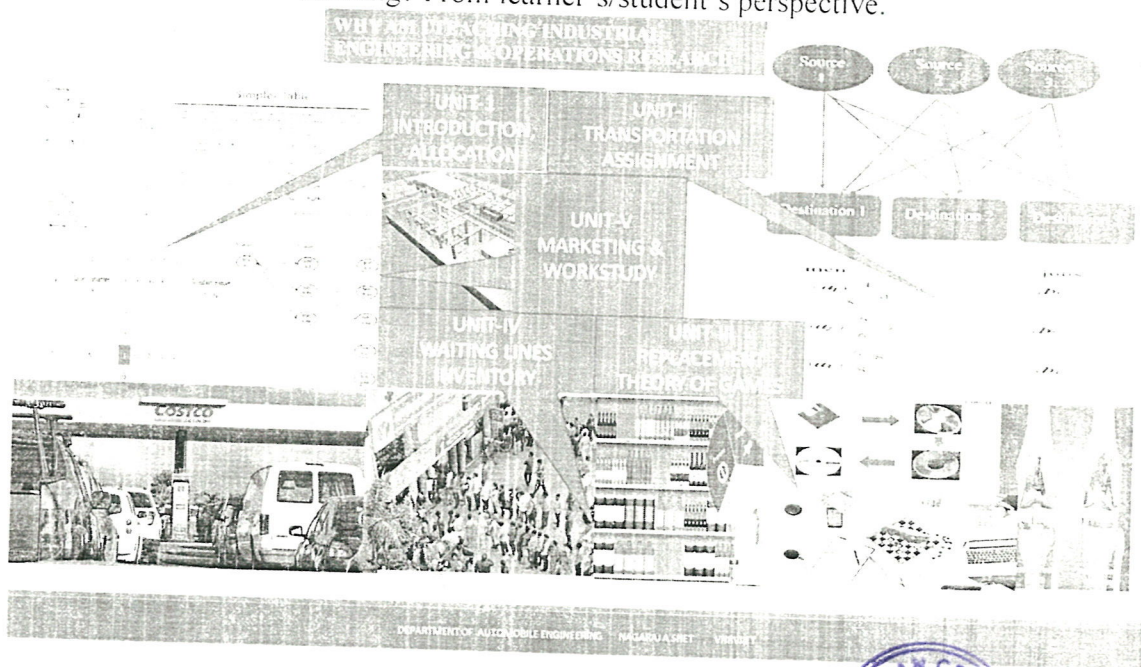
E-mail: postbox@vnrvjiet.ac.in, Website: www.vnrvjiet.ac.in

Industrial Endorsement

This is to ensure that the following **WIT & WIL** scenario titled "solving the business and real life problems" can be used as a teaching-learning methodology for the subject titled "**INDUSTRIAL ENGINEERING & OPERATIONS RESEARCH**" for B.Tech IV year I Semester of Automobile Engineering. The applications mentioned in the scenario are very much related to the subject and the concepts are fittingly used in the field as well.

WIT & WIL is a teaching – learning methodology developed by **VNR VIGNANA JYOTHI INSTITUTE OF ENGINEERING & TECHNOLOGY**, which aims at bringing the gap between institutional academic systems and industrial applications.

WIT & WIL – "Why am I teaching-What I am teaching? & Why am I learning-What I am learning?" is defined as an active methodology of teaching and learning with "Why am I teaching-What I am teaching?" from teacher's perspective and "Why am I learning what I am learning? From learner's/student's perspective.



Stamp / Signature of Endorsing Industry



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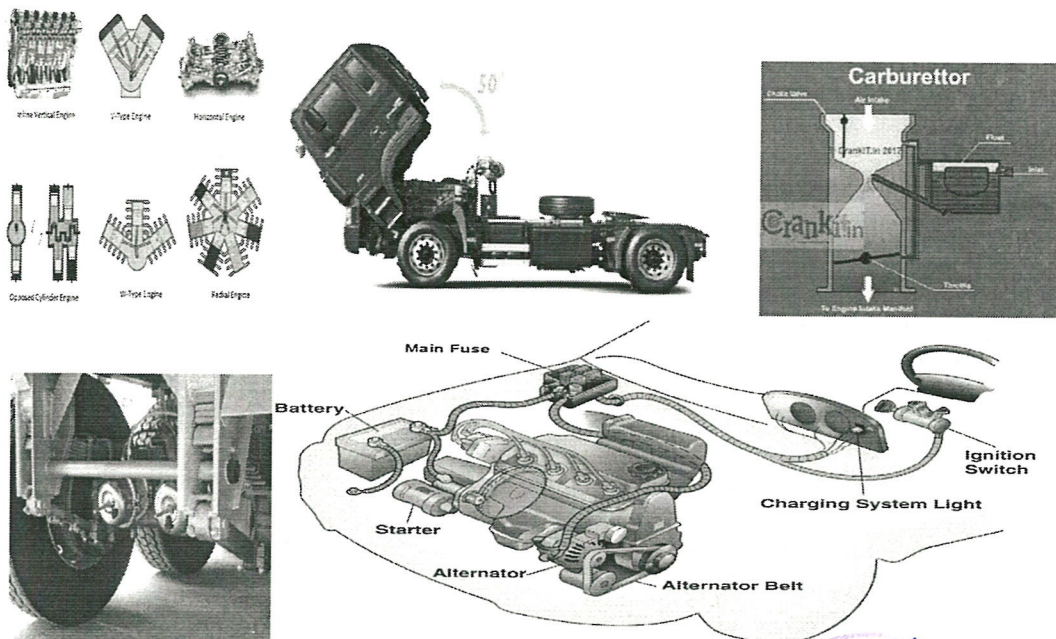
Industrial Endorsement

This is to ensure that the following WIT & WIL, scenario titled "Fundamentals of Automobile Engineering" can be used as a teaching-learning methodology for the subject titled "Principles of Automobile Engineering" for B.Tech III year I Semester (Open Elective-I) of Engineering. The applications mentioned in the scenario are very much related to the subject and the concepts are fittingly used in the field as well.

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SCENARIO



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Industry Endorsement

This is to endorse that the following WIT & WIL scenario titled "**Thermodynamics – WIT & WIL Scenario**" can be used as a teaching-learning methodology for the subject titled "Thermodynamics" for the students of II B.Tech I Semester Automobile Engineering.

WIT & WIL Methodology is a teaching-learning process of VNR VIGNANA JYOTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY, which would aim to bridge the gap between institutional academic systems and industry requirements. The definition of "WIT & WIL" method explained as an active methodology of teaching and learning activity with "Why am I Teaching & What I am Teaching" from Teacher's perspective. From student's perspective, it is "Why am I Learning & What I am Learning".

SCENARIO



Signature with stamp of Endorsing Industry

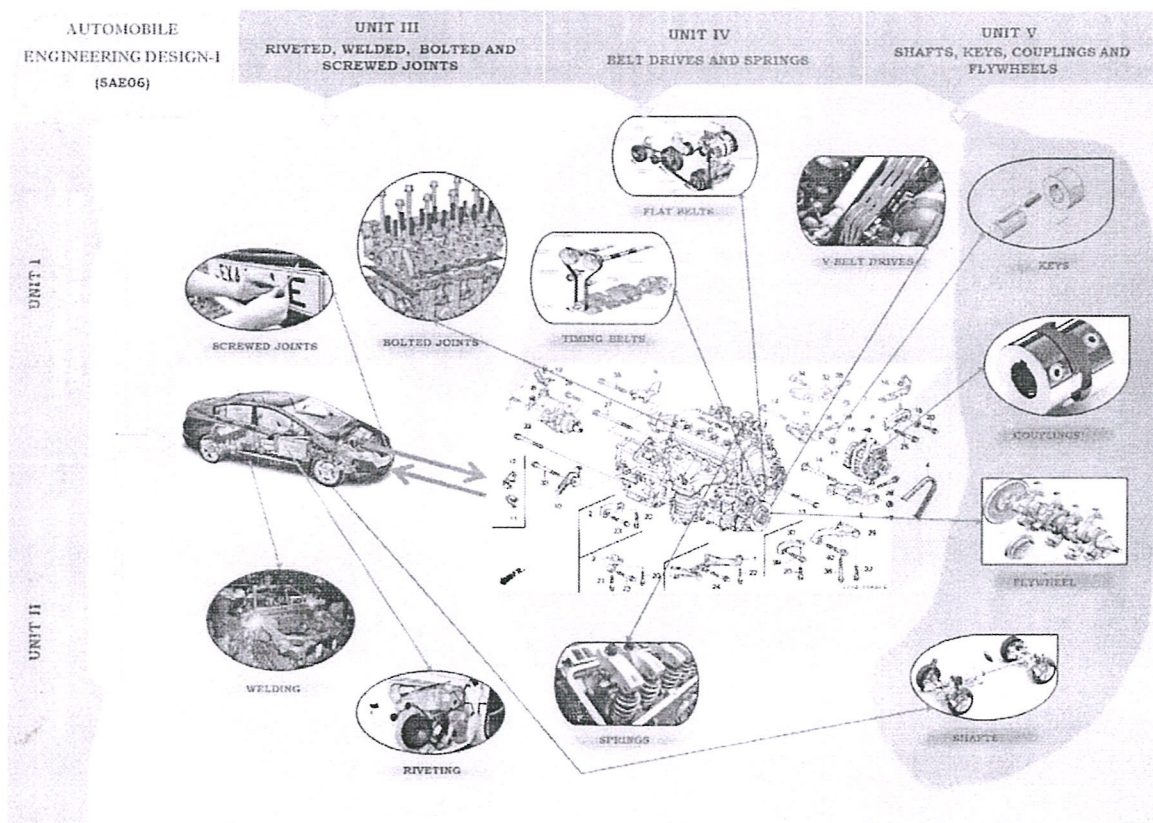
ALOK KANANDAPPA
D. Tech
Scientist / Engineer
National Remote Sensing Centre
ISRO - Dept of Space
Balanagar, Hyderabad-500 037

Industry Endorsement

This is to endorse that the following WIT & WIL scenario titled "Designing of Automobile components – WIT & WIL Scenario" can be used as a teaching-learning methodology for the subject titled "Automobile Engineering Design-I" for the students of **III B.Tech I Sem.** Automobile Engineering.

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Scenario – Designing of Automobile components Subject: Automobile Engineering Design-I



KRANTHI KATIKANENI

Sr. Engineer

Mahindra & Mahindra

MRV, Chennai

Katikaneni.kranthi2@mahindra.com

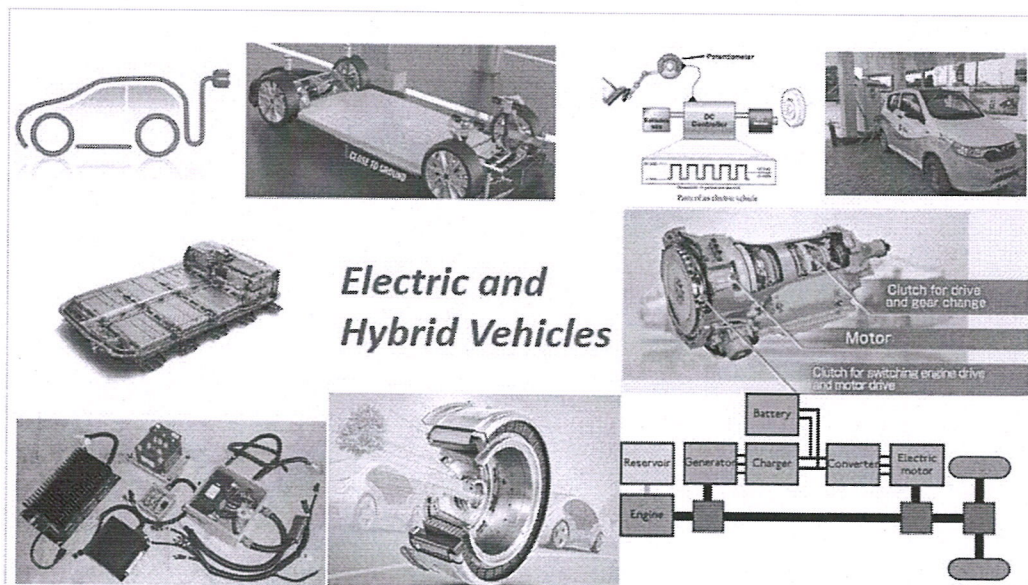
Industrial Endorsement

This is to ensure that the following WIT & WIL, scenario titled "Alternate power train" can be used as a teaching-learning methodology for the subject titled "Electric and Hybrid vehicles" for B.Tech IV year I Semester of Automobile Engineering. The applications mentioned in the scenario are very much related to the subject and the concepts are fittingly used in the field as well.

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SCENARIO



Koti R. S.

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KOTI JEEVITH
ZF PRODUCTION SYSTEMS &
MANUFACTURING ENGINEER
C/O ZF HERO CHASSIS SYSTEMS PVT. LTD.
ORAGADAN, CHENNAI -
TAMIL NADU
INDIA.

Industry Endorsement

This is to endorse that the following WIT & WIL scenario titled "**Automotive Infotronics – WIT & WIL Scenario**" can be used as a teaching-learning methodology for the subject titled "Thermodynamics" for the students of **IV B.Tech I Semester** Automobile Engineering.

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Scenario - Drivers Behaviour

Subject: Automotive Infotronics



J. CHIDANANDAPPA

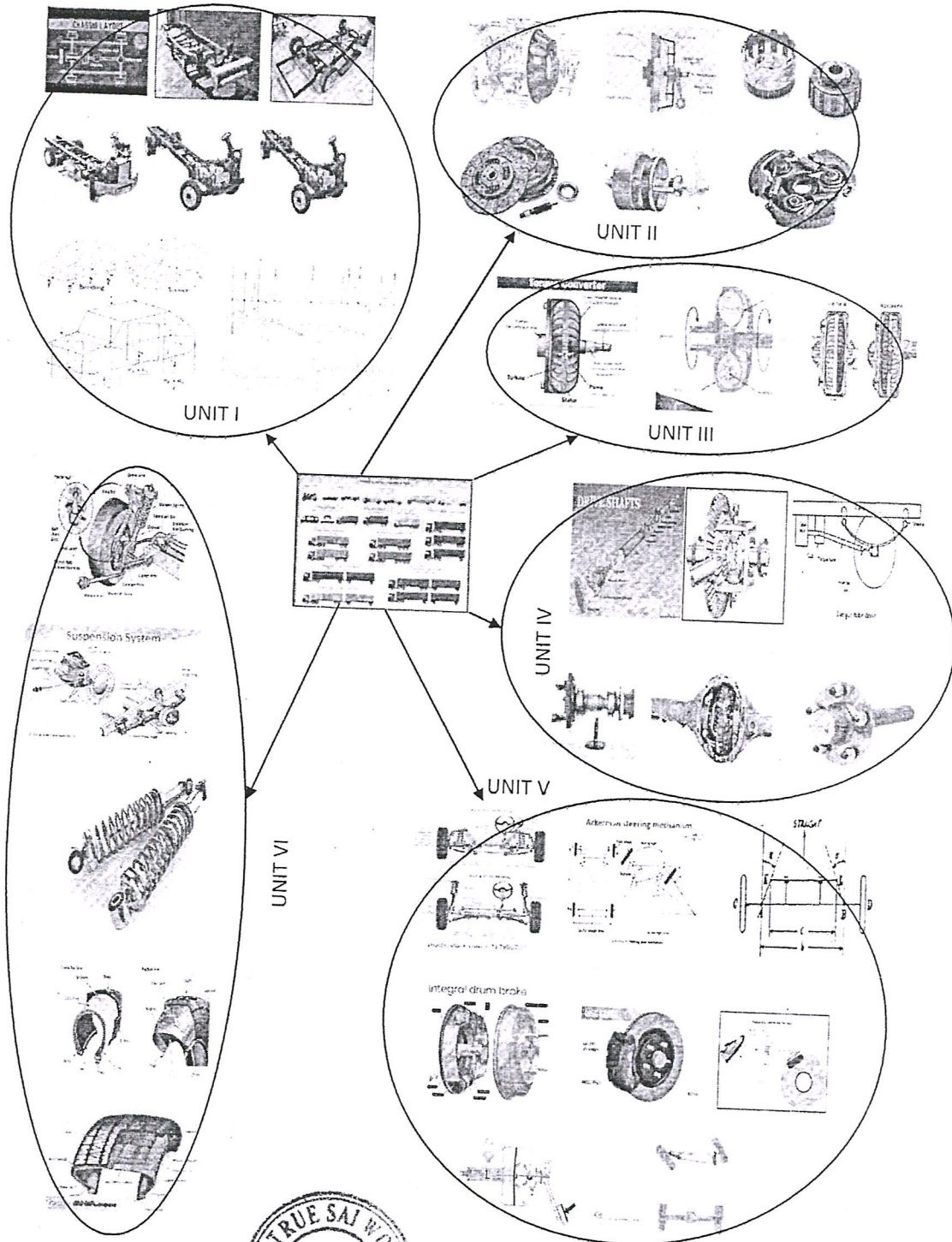
M. Tech

Signature with stamp of Endorsing Industry

Signature with stamp of Endor
National Remote Sensing Centre

ISRO / Dept of Space

Balanagar, Hyderabad-500 037



THE TRUE SAI WORKS
 417 A/1A, Pathanapalli Village,
 Chennai Road,
 Opp. Tamil Nadu Hotel
 KRISHNAGIRI - 635 001.
 635 004, 005.



Handwritten signature and text:
 J. S. S. S. S.
 and Anant
 ...

Industrial Endorsement

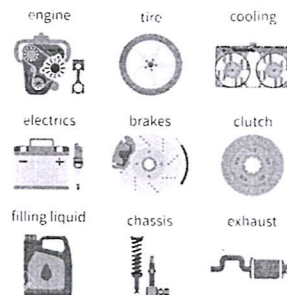
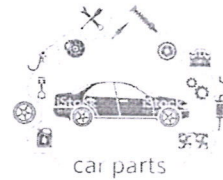
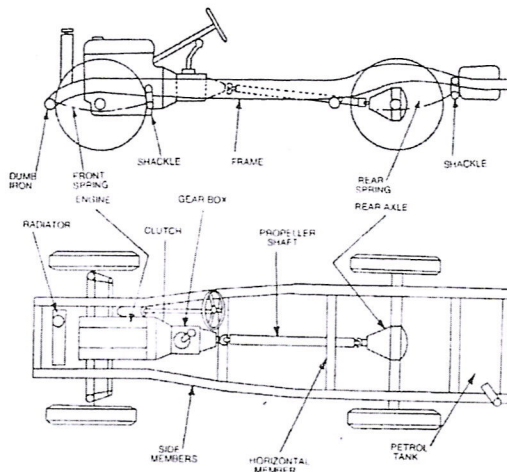
This is to ensure that the following WIT & WIL, scenario titled "Automotive chassis" can be used as a teaching-learning methodology for the subject titled "Automotive chassis" for B.Tech III year I Semester of Automobile Engineering. The applications mentioned in the scenario are very much related to the subject and the concepts are fittingly used in the field as well.

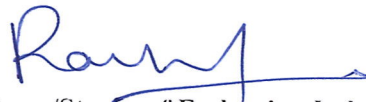
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SCENARIO

WHY AM I TEACHING AUTOMOTIVE CHASSIS




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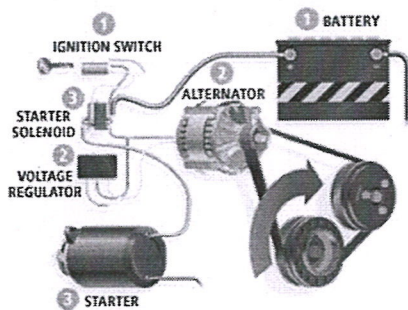
Ramesh Nallavelli
[Lead Engineer – ABB]

Industrial Endorsement

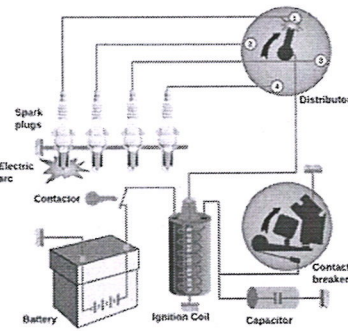
This is to endorse that the following WIT & WIL scenario titled "Electrical and Electronic systems in a Car" can be used as a teaching-learning methodology for the subject titled "Automotive Electrical and Electronics" for the students of B.Tech. III Year (Automobile Engineering).

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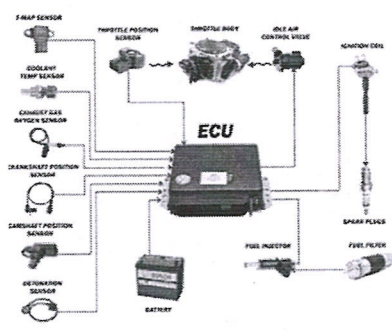
Scenario: Electrical and Electronic Systems in a Car



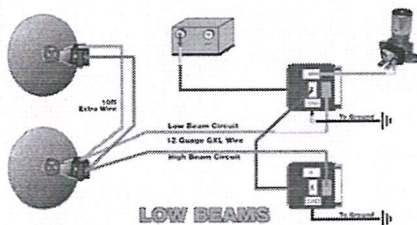
Starting and Charging System



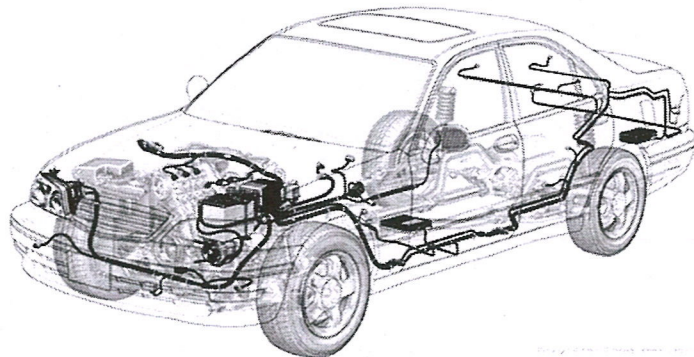
Ignition System



Electronic Engine Control, Sensors & Actuators



Lighting System



Signature with stamp

Name: B.S. KRISHNA PRASAD

Designation: General Manager - Engineering

Organisation & Place: Tech Mahindra, Hyderabad

E-mail: krishnaprasad.buravelli@techmahindra.com

Industry Endorsement

This is to endorse that the following WIT & WIL scenario titled “**Heat and Mass Transfer in Car**” can be used as a teaching-learning methodology for the subject titled “**Heat and Mass Transfer**” for **B. Tech III Year I Semester of Automobile Engineering**. The applications mentioned in the scenario are very much related to the subject and the concepts are fittingly used in the field as well.

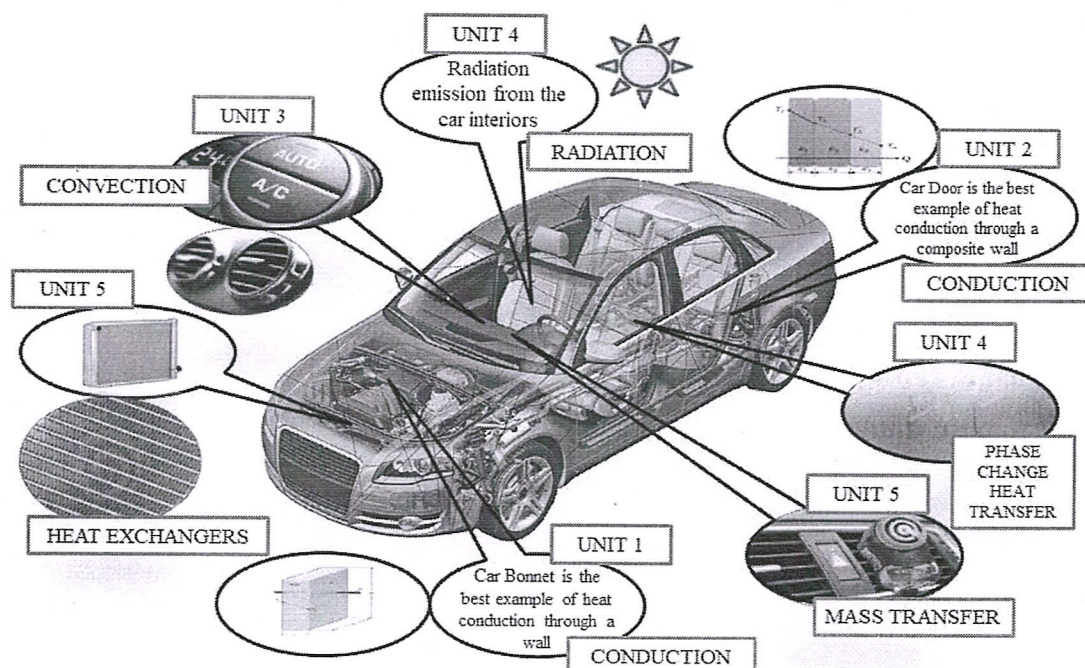
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Why am I Teaching What I am Teaching?

WIT & WIL Scenario

Heat and Mass Transfer in Car



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J. CHIDANANDAPPA

M. Tech

Scientist / Engineer SE

National Remote Sensing Centre

ISRO - Bangalore

Bellary - 577 102

Industry Endorsement

This is to endorse that the following WIT & WIL scenario titled "**Computer Aided Design and Manufacturing of Industrial Components**" can be used as a teaching-learning methodology for the subject titled "CAD/CAM" for the students of IV B.Tech I Semester Automobile Engineering.

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SCENARIO

WHY AM I TEACHING CAD/CAM

Unit - I

Understand the mathematics behind the transformations and projections in design of products on CAD devices.

Unit - II

Know the various types of models and perform drafting.

Unit - III

Learn the fundamentals of part programming required for manufacturing a product.

Unit - IV & V

Appreciate the integration of design and manufacturing functions through CAD and CAM.

Computer Aided Process Planning (CAPP)

Department of Automobile Engineering, VNR VJIEET

H. S. Rao
 GM, Techno IES

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Industrial Endorsement

This is to ensure that the following WIT & WIL, scenario titled "Finite Element Method" can be used as a teaching-learning methodology for the subject titled "Finite Element Analysis" for B.Tech. IV year I Semester of Automobile Engineering. The applications mentioned in the scenario are very much related to the subject and the concepts are fittingly used in the field as well.

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SCENARIO

WHY AM I TEACHING



To solve stress problems

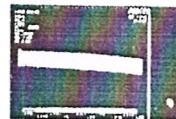


To learn the effect of stress, strain, and other parameters



To learn the effect of stress, strain, and other parameters

WHY AM I LEARNING



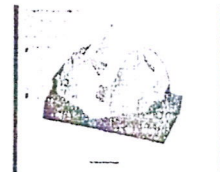
Eng. Design of Stress



Stress



Heat Transfer Analysis



Displacement

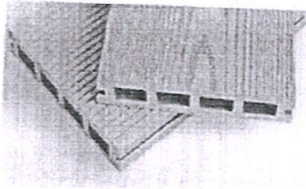
[Signature]
Signature / Stamp of Endorsing Industry
Y. SHIVA PRASAD
MD, Yatra Engg Solutions
Hyderabad.
(P) LTD

Industry Endorsement

This is to express that the Scenario design of the subject and the applications mentioned for the subject by S.Balachandran for the subject of vehicle body engineering and safety taught to B.Tech. Students of Automobile Engineering, IV Year, I Semester is of relevance to real life applications.

Why am I teaching what I am teaching?

UNIT I



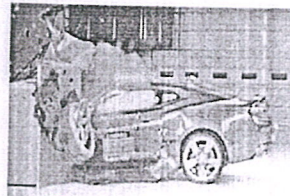
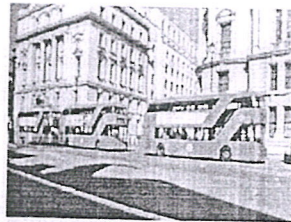
Composite used in vehicle body



Vehicle body terminology

UNIT II

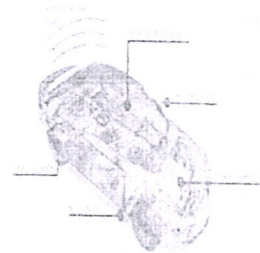
Types of bus body



UNIT V

Crash test

UNIT III



Source of noise in vehicle

DEPARTMENT OF AUTOMOBILE ENGINEERING BALACHANDRAN VIKRAM

unit-I deals with material used for developing car body parts. Unit II deals with different types of car body exist for commercial use and driver visibility for optimum driving range Unit-III deals with different types of bus body and commercial body for mobility purpose. In Unit-IV explains the explain the safety rules, crash test, and crash worthiness of vehicle. Unit-V deals with noise vibration harshness sources and controlling method in vehicle.

Ka

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[V. M. Karthikeyan
Senior Design Engineer
Tata Motors, Pune]