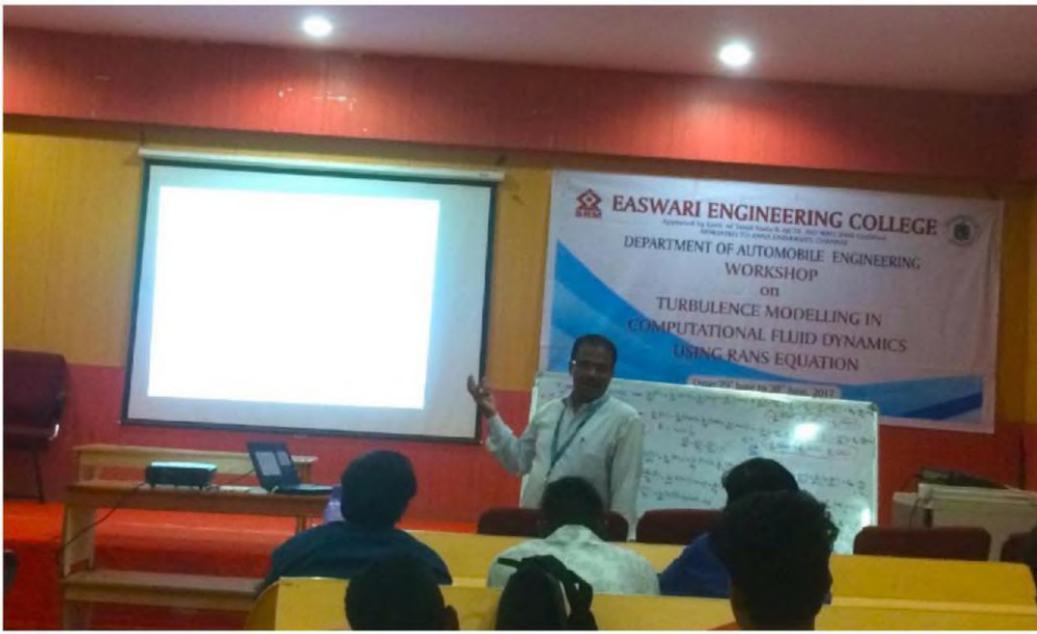




AutoCruise'17

Newsletter by Automobile Engineering Department.



i) Two Days Workshop on :

“Turbulence Modelling in Computational Fluid Dynamics using RANS Equation.”

The following workshop which took place from 29th and the 30th of June 2017 was organised by the Department of Automobile Engineering where upto 20 participants registered.

The workshop was inaugurated by our principal Dr.K.Kathiravan, our vice principal Dr.L.Antony Michael Raj, our professors Dr.V.Antony Aroul Raj and the coordinator Mr.C.Hariharan.

Hence all the concepts from Basic to Advance were dissected and explained along with plotting all the concepts in the visual form by the use of Ansys Software to really cement the concepts that have been thought using the CFD Equations. A great interactive session was the end result by the students having all of their doubts cleared on spot hence making it a great learning experience.

Faculties Incharge



Here are the professors that made it happen.



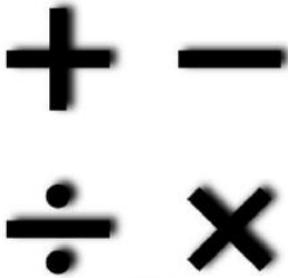
Dr.Antony Aroul Raj

Explained basic to the advanced concepts.



Mr.C.Hariharan

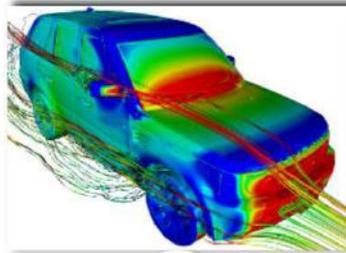
Gave the introduction and use of the Ansys software for the application of the concepts.



1

BASIC

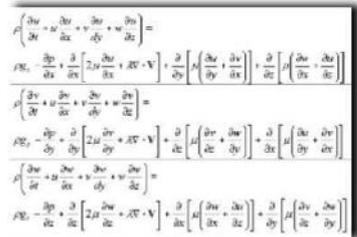
Concepts such as Continuity, Energy, Momentum Equations and types of PDE were introduced.



2

INTERMEDIATE

Methods of Applying Commercial CFD Softwares for flow simulation were explained and observed.



3

ADVANCED

Topics such as Turbulence Modelling in CFD using RANS Equation, Error and Uncertainty Principles were Explained.

Overall it was a great chemistry of students and professors together to make this workshop on Turbulence Modelling in CFD successful , also thanking The Principal and Vice Principal for giving us the opportunity for such an amazing experience.

Dr.ANTONY AROUL RAJ (FRONT LEFT)

Dr.K.KATHIRAVAN (FRONT RIGHT)

PROFESSORS AND STUDENTS (BEHIND)

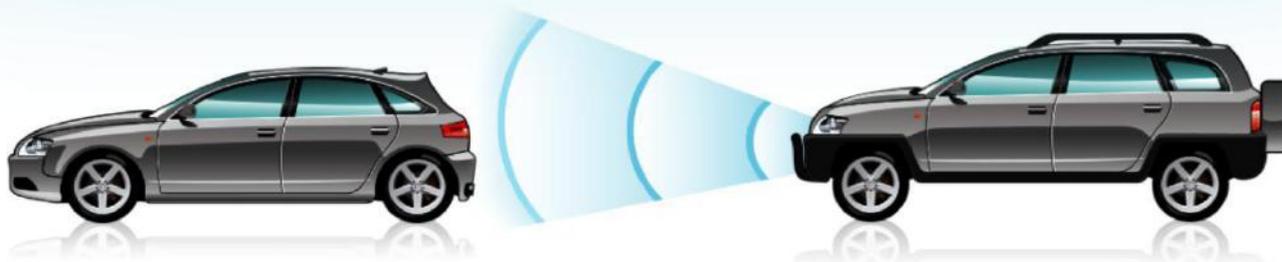




Nissan Motor's

Engine Performance Manager

Gives Guest Lecture on Active and Passive Safety.



Department Of Automobile Engineering Had Organised A Guest Lecture On Active And Safety For III, IV year automobile engineering students on 22nd of July 2017. The speaker for the lecture being M.Rajesh (Manager - Engine Performance) Nissan Motors.

Dr.S.Sathiyamurthy, professor and head of department of automobile engineering introduced the speaker. In his lecture M.Rajesh discussed about the automobile safety. In the presentation students are learnt the importance of safety & safety norms followed in India.



Different safety systems and working principles were also discussed. Students now know about the working of an airbag and the seat belt setup. This lecture helped the students understand how safety is important and how the manufacturer concentrates on these. Cross-section of airbag systems were presented and passed on to each student to have a better understanding of the system. The overall feedback of the lecture was good.



Guest Lecture on “Advance Manufacturing Technology and Process”



Venue: Seminar Hall 1TRP Auditorium.

Date: 09th July 2017.

Department of automobile engineering had organised a guest lecture on advance manufacturing technology and process for automobile engineering students. The speaker for the lecture was Dr.T.Sundarrajan, who is from DGM Wheels India.

Dr.S.Sathiyamurthy, Professor and head, Department of Automobile Engineering introduced the speaker. In his lecture Dr.T.Sundarrajan discussed about the advance manufacturing technology and its applications. Processes that are currently being used for manufacturing used cold coil metal sheet. Merits and demerits and applications of various manufacturing process were explained in the lecture. Its helps us to gain knowledge and opportunity on manufacturing field. It was helpful and insightful.

Tesla's Model 3 Arrives With a Surprise 310-Mile Range

Elon Musk finally unveils the long-awaited electric car for the masses.



TESLA

Three hundred ten.

That's the electric range of a \$44,000 version of Tesla's Model 3, unveiled in its final form Friday night. It's a jaw-dropping new benchmark for cheap range in an electric car, and it's just one of several surprises Tesla had in store as it handed over the keys to its first 30 customers.

Tesla has taken in more than 500,000 deposits at \$1,000 a piece, Chief Executive Officer Elon Musk told reporters ahead of the event. This has created a daunting backlog that could take more than a year to fulfill—and that was before Musk took the stage in front of thousands of employees, owners, and reservation-holders to lift the curtain on the company's most monumental achievement yet.

“We finally have a great, affordable, electric car—that's what this day means,” Musk said. “I'm really confident this will be the best car in this price range, hands down. Judge for yourself.”

Here's some of what Tesla disclosed at its plant in Fremont, California:

Two Battery Versions

Tesla has simplified the manufacturing process “dramatically,” Musk said. In the same factory space where Tesla can build 50,000 Model S or Model X cars, it will soon be able to produce 200,000 Model 3s. Part of that is due to a simplified package of options.

The car comes in two battery types: standard and extended range. Here's how they break down:

Standard Battery:

Price: \$35,000

Range: 220 miles (EPA estimated)

Supercharging rate: 130 miles in 30 minutes

Zero to 60 mph time: 5.6 seconds

Long Range Battery:

Price: \$44,000

Range: 310 miles

Supercharging rate: 170 miles in 30 minutes (Same as Tesla's Model S)

Zero to 60 mph time: 5.1 seconds

Solar Power Panels by Tesla

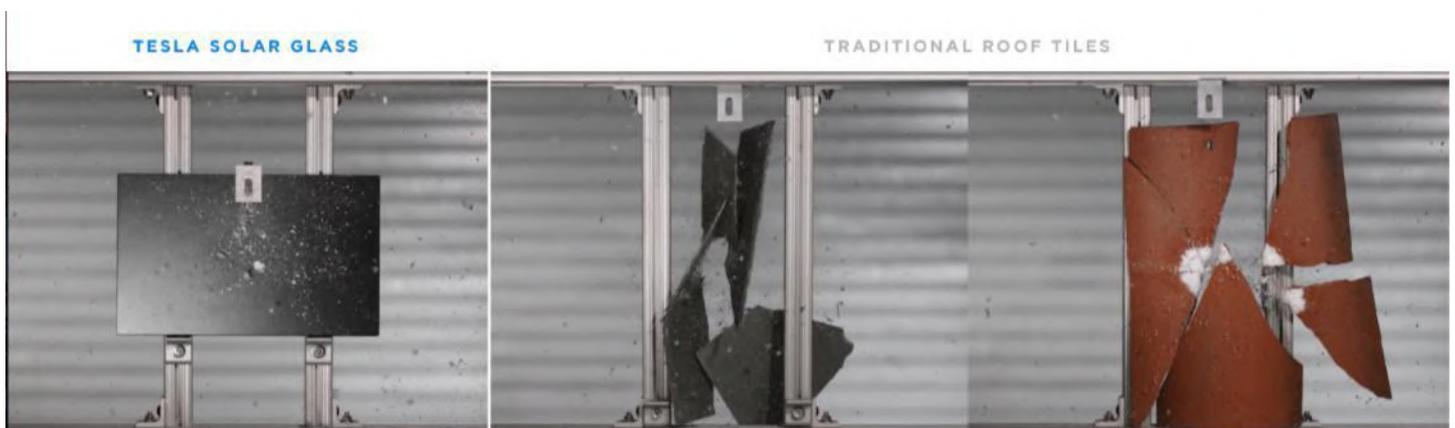
Invisible Solar Cells

Customize the amount of electricity your Solar Roof produces to fit your energy needs. This feature is made possible by using two types of glass tile, solar tile and non-solar tile. Both appear the same from street level.



Infinite Tile Warranty

Made with tempered glass, Solar Roof tiles are more than three times stronger than standard roofing tiles. That's why we offer the best warranty in the industry - the lifetime of your house, or infinity, whichever comes first. Watch our hail test video to see how we take durability to a whole new level.



Test video for the highest (class 4) hail rating, filmed at 2,500 frames per second. Each 2" hailstone is travelling 100 mph on impact.

Department of Automobile Engineering

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