

## SAEISS SKIP PROGRAM REPORT

Topic	:	Automotive Transmission
Date	:	16 <sup>th</sup> and 17 <sup>th</sup> March 2018
Speaker	:	Mr. R. Venugopal, DRDO Fellow, CVRDE
Inaugurated By	:	Mr. S. Srinivasa Rao, Scientist, CVRDE
Presided By	:	Mr. T. Kasiraja, MC Member, SAEISS
Total Strength	:	61 Students
Total colleges	:	1 College
Venue	:	Vel Tech Multi Tech Dr. RR & Dr. SR Engg. College, Avadi, Chennai

### Suggested Topics for Future SKIP Program:

- ❖ Recent trends in Automobile industry, Emission standards and process
- ❖ Suspensions System
- ❖ Braking systems, Automobile Safety
- ❖ Vehicle Dynamics
- ❖ Hybrid Vehicles
- ❖ Vehicle Emission
- ❖ Engine Tuning, ECU, Exhaust system, Aerodynamics
- ❖ Design of Automobiles
- ❖ Types of sensors used in automobiles
- ❖ Advanced IC engine
- ❖ CFD Software

- ❖ Suspension & control automobile assembly of parts
- ❖ Suspensions especially that are used now a days
- ❖ IC engines (assembling and dismantling)
- ❖ Basic parts assembling and dismantling of car and other automobiles
- ❖ Engines
- ❖ New technology in automobile
- ❖ Hybrid and electric vehicles

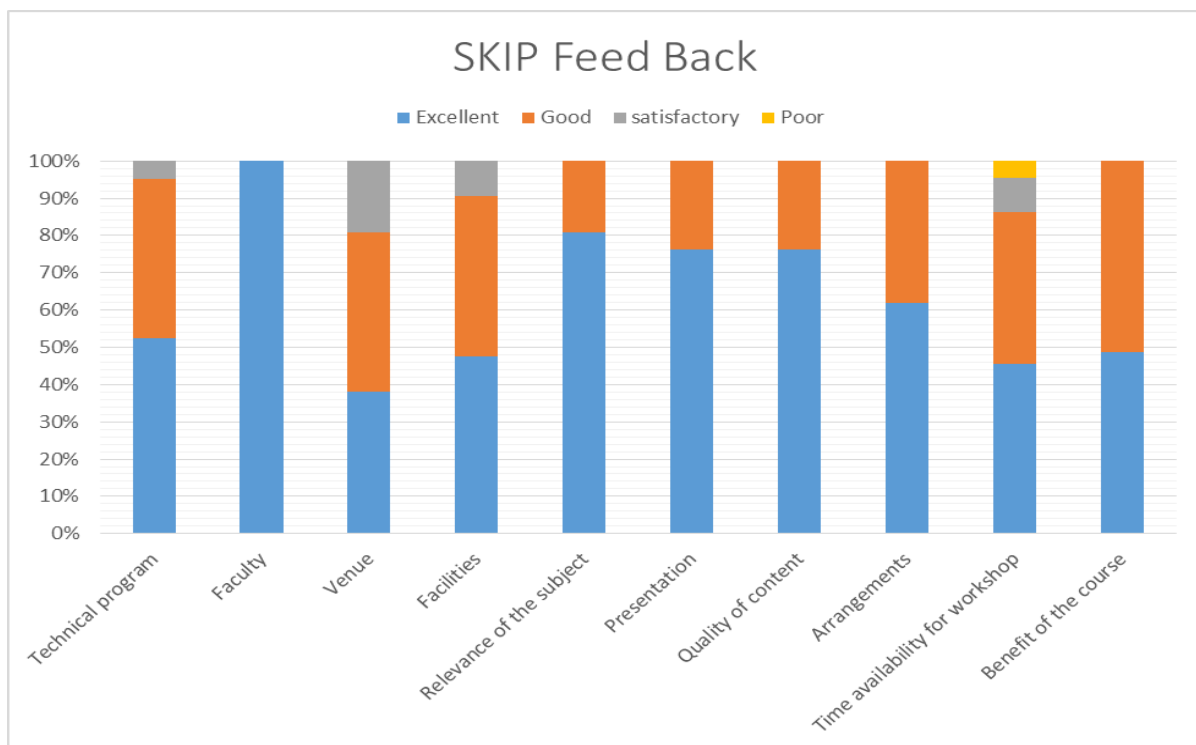
**Special Suggestion Points:**

- ❖ A better Venue for next time
- ❖ Kindly reduce the Registration fee
- ❖ More real time on road vehicle specifications can be discussed
- ❖ Little more practical based program will be good
- ❖ More Related videos can be shown.
- ❖ Maintain some samples to see. Like parts of Transmission.
- ❖ Give hands on training with some transmission system on the second day. Let the first day be a theory class.
- ❖ If possible make some arrangements for accommodation for students from various districts
- ❖ Give a practical trainings
- ❖ We want to have practical experience
- ❖ Suggesting area for accommodation would be helpful for students like us from other districts, states
- ❖ If the things are shown practically it will more useful for us
- ❖ Practical representations is required
- ❖ Can concentrate much on commercial vehicle transmission.

**Objective:**

- ❖ Many modern cars, buses, trucks, off highway vehicles, mining equipment's, and military Vehicles use Automatic Transmissions. The driving comfort and improved life of drive train Components by the use of automatic transmissions is attracting the attention of vehicle users as well as vehicle manufacturers. Automatic transmissions offer ample opportunities to Practicing engineers in various fields of product development.
- ❖ All executives irrespective of their involvement in different phases of product development cycle will benefit from this course.

**Criteria and Comments about the program:**



	Excellent	Good	Satisfactory	Poor
<b>Technical program</b>	11	9	1	0
<b>Faculty</b>	21	0	0	0
<b>Venue</b>	8	9	4	0
<b>Facilities</b>	10	9	2	0
<b>Relevance of the subject</b>	17	4	0	0
<b>Presentation</b>	16	5	0	0
<b>Quality of content</b>	16	5	0	0
<b>Arrangements</b>	13	8	0	0
<b>Time availability for workshop</b>	10	9	2	1
<b>Benefit of the course</b>	20	21	0	0

## Report

SKIP program on topic of “**Automotive Transmission**” was organised by SAEINDIA Southern Section on **16<sup>th</sup> and 17<sup>th</sup> March 2018** at Vel Tech Multi Tech Dr. Rangarajan Dr. Sakunthala Engineering College, Avadi, Chennai.

**Speaker:** Mr. R. Venugopal, DRDO Fellow, CVRDE

### **1<sup>st</sup> Day Program**

Automotive Transmission SKIP Program Introduction and Inauguration was done by Mr. S. Srinivasa Rao, Scientist, CVRDE.



Mr. R. Venugopal starts the program with a brief Introduction about Automotive Transmission and Objective of this program. Then he explained on types of gear and their categories like spur gear, Spur rack, Helical gear, Helical rack, Double helical gear, Straight bevel gear, Spiral bevel gear, Screw gear and Worm gear.

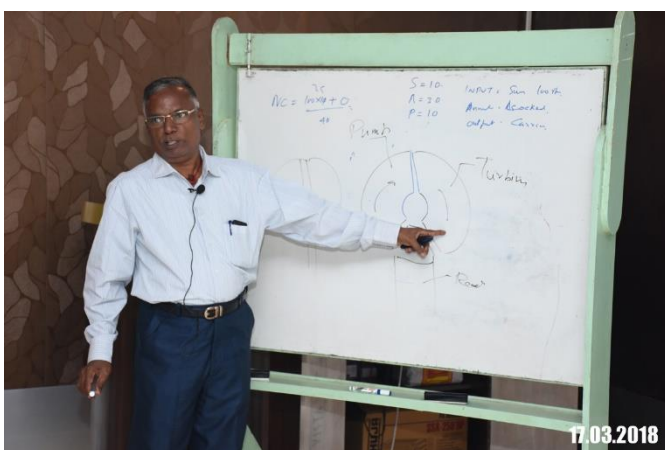


In afternoon session, Speaker explained about synchromesh gear box, Synchronizer mechanism, Simple and compound epicycle gear trains. Speaker also explained about gear cost vs. quality with slide.



## 2<sup>nd</sup> Day Program:

Speaker started second day session with explaining about the Transmission control like brake system, Neutral start switch, Throttle position sensor, Water temperature sensor, Speed sensor, Stop light switch, over dive main switch and control of lock-up.



During the valedictory session Mr. T. Kasiraja, Treasurer, SAEISS took over. Then he asked the participants to say about their view regarding the program. Finally, the Students gave the feedback about the program at the end of the Session.



Mr. T. Kasiraja and Mr. R. Venugopal distributed the certificate to the participants. Mr. R. Paullinga Prakash, SAE Trek and KRT Trek Champion felicitated the speaker with the memento as the token of appreciation for conducting such a Value added program to the student community and making the event a grand success.



**SKIP Champions**

**Mr. B. SenthilKumar, Champion**

**Dr. S. Karthikayan, MC Member/SAEISS**

**Prepared By,**

**D. Fathima, Asst.Manager /SAEISS**