

# D.E.I. TECHNICAL COLLEGE



Established in 1927  
as a Technical School



# Vision of the Founding Father of D.E.I. Technical College



‘Education,  
more education,  
education made  
perfect is the  
panacea for our  
country’s ills and  
evils’.



Founding Father of the College,  
Sir Anand Sarup, Kt.

# DEPARTMENT OF AUTOMOBILE ENGINEERING



## **A Brief Profile and Progress Report** **Last Five Years (2012-2017)**

# Programs offered by the Department



The department leads in offering technical and vocational programs and has contributed significantly to the Government of India's Skilling initiatives. Programs offered by the Department are-

- Three-year Diploma in Automobile Engineering.
- Three-year Vocational Diploma in Automobile.  
Aligned with NSQF.
- UGC approved Three-year B. Voc. in Automobile  
With multiple entry and exit options.
- One-year Certificate in Motor Vehicle Mechanic (4-wh).  
Aligned to ASDC Auto Service Technician Level-3 course.
- One-year Certificate in Two-wheeler Technician.  
Aligned to ASDC Two-wheeler and Three-wheeler Technician course.

# Intake in various Programs



- Diploma in Automobile Engineering - 60
- Diploma Vocational in Automobile - 100
- B. Voc. in Automobile - 50
- Motor Vehicle Mechanic (4-wh) - 30
- Two-wheeler Technician - 30

# Memoranda of Understanding (MoUs) with Automobile Companies



- **MARUTI SUZUKI INDIA LTD**
- **INDIA YAMAHA MOTOR PVT LTD**
- **TVS MOTOR CO LTD**

# MoU with Maruti Suzuki India Ltd, Gurgaon



# MoU with India Yamaha Motor Pvt Ltd, Surajpur





# MoU for establishing Yamaha Training School (YTS) in the tribal village cluster in Rajaborari (25.03.15).



# MoU with TVS Motor Co, Hosur



# Infrastructure and Learning Resources



- **AUTOMOBILE SKILL ENHANCEMENT CENTRE (ASEC)**
- **YAMAHA TRAINING SCHOOL (YTS)**
- **DEI-TVS WORKSHOP**

# Maruti Training Vehicle on Two-Post Lift





# AC Gas Recovery Machine and Brake Bleeder



# Cut-Section Models (ASEC)



# Director, DEI Inaugurated YTS, DEI on 4<sup>th</sup> October 2012



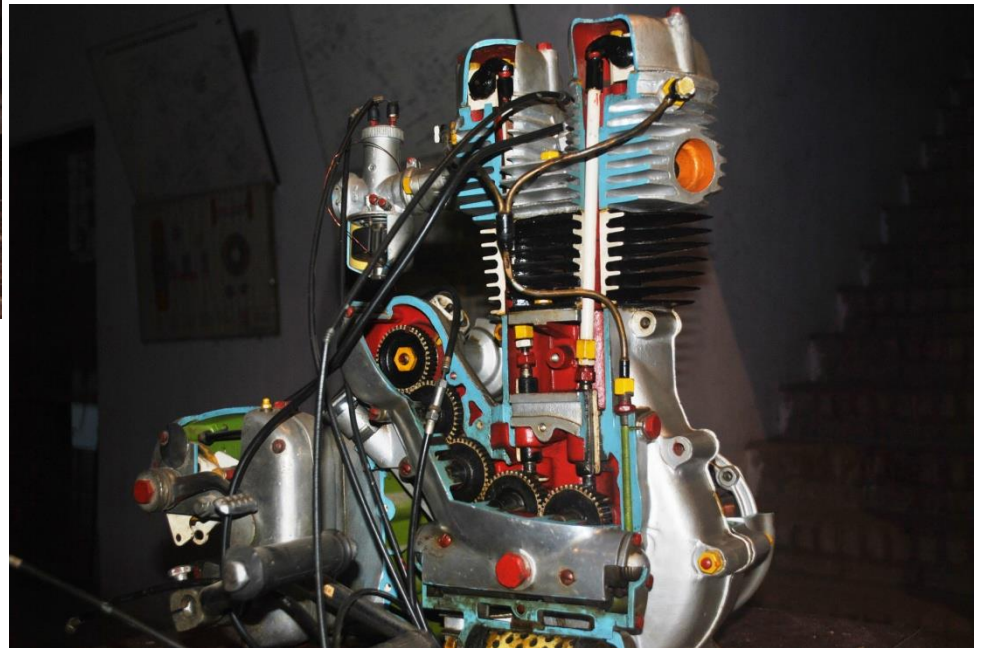


# DEI-TVS Training Facility





# Working Models of Engines



# Engine Exhaust (Pollution) Testing Equipment

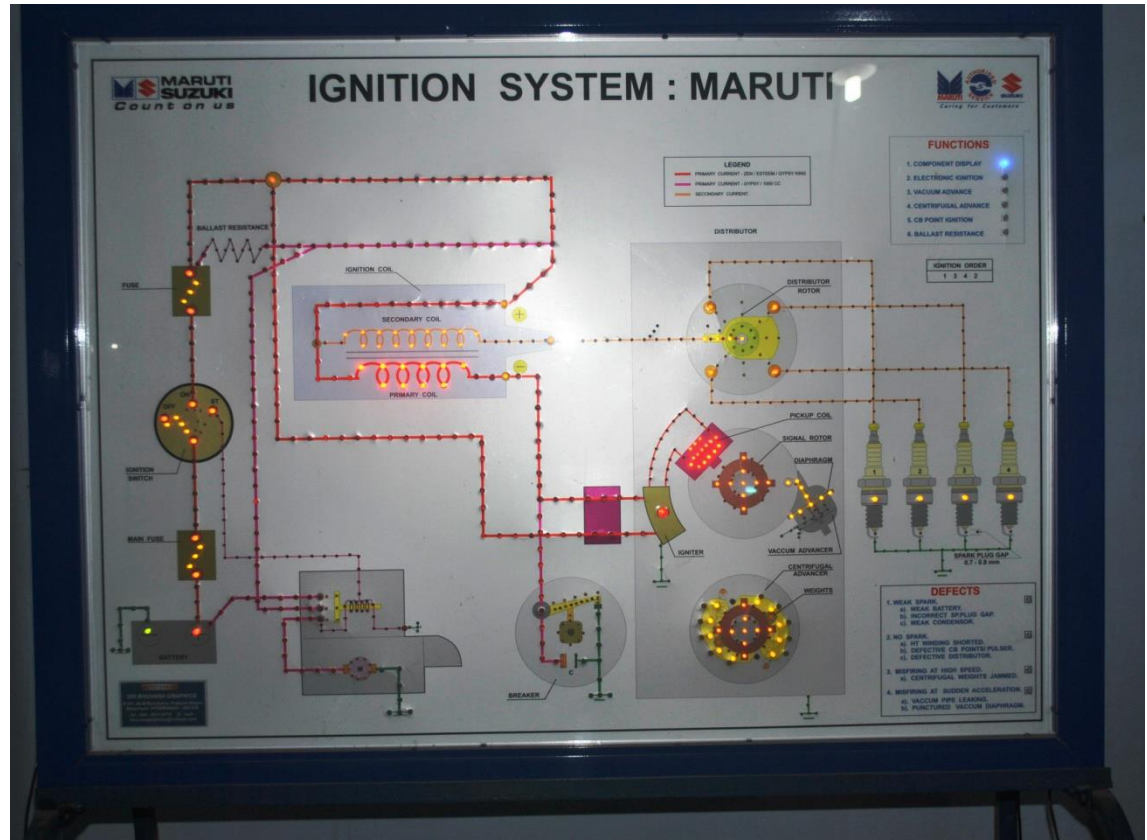


# Wheel Alignment and Wheel Balancing Machines





# Headlight Aligner and Dynamic Display



# Car Driving Simulator



# Hands-on Practical Training



- **FOUR-WHEELER**
- **TWO-WHEELER**
- **MOTOR VEHICLE DRIVING**



# 4-wh Students getting Trained in Technical Skills



# 2-wh Students getting Trained in Technical Skills





# Diploma Girls getting Trained in Technical Skills



# Diploma Automobile Girls in Automobile Workshop



Diploma  
Vocational  
Automobile  
*(Girls)*

# Students practicing Yoga



# Services/Facilities Offered



- Automobile Service Repair & Training Centre (ASR&TC) provides automobile maintenance and repair facilities not only to Institute vehicles and staff but also to those of the general public at less than market rates.
- TVS Workshop provides training facility to the technicians of TVS dealers.

## New Programs/Services/Facilities Introduced (2012-17)



4.10.2012	Yamaha Training School (YTS) Workshop established at DEI with assistance of IYMPL.
25.02.2013	MoU signed with RSS Agriculture Farm Workshop for on-job training (OJT) of students.
9.08.2013	MoU with TVS Motor Co Ltd, Hosur signed for Co-operative Education Program (CEP) for Diploma Automobile students.
11.04.2014	Tripartite agreement signed with M/s Prem Motors and MSIL for continued assistance in upgradation of facilities and training.
2014 - 15	Female students admitted in Automobile Diploma program.
2014 - 15	UGC recognized Community College One-year Diploma in Automobile started.
25.10.2014	MoU signed with Vocational Training Authority of Sri Lanka for collaboration on Technical Education and Vocational Training.

## New Programs/Services/Facilities Introduced (2012-17)



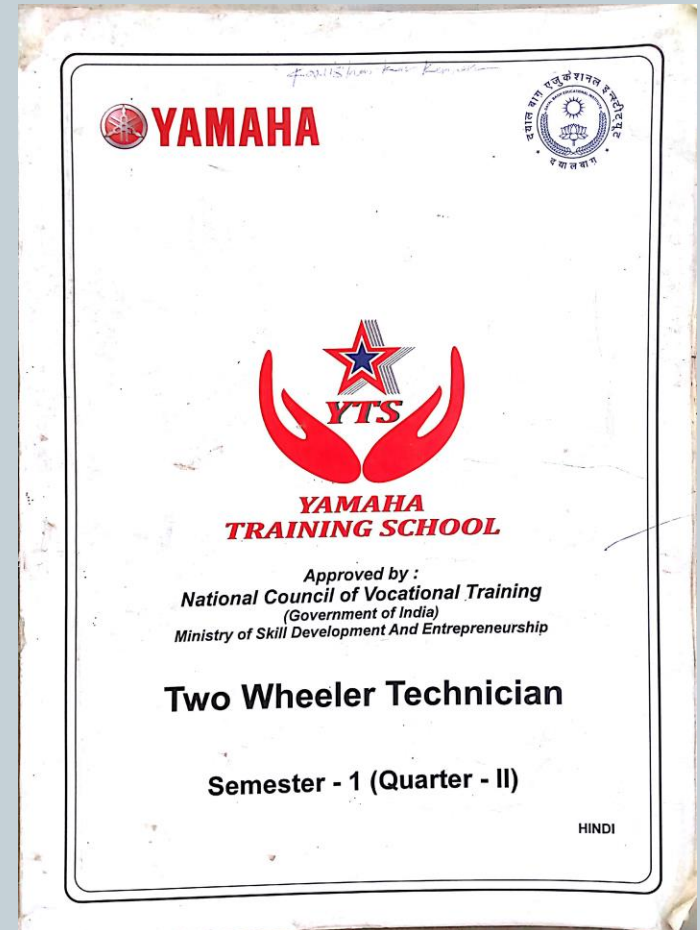
25.03.2015	MoU signed with India Yamaha Motor Pvt Ltd (IYMPL), Surajpur to start YTS at ICT, Timarni.
11.05.2015	MoU signed with India Yamaha Motor Pvt Ltd (IYMPL), Surajpur to start YTS at ICT, Amritsar.
21.06.2015	MoU signed with India Yamaha Motor Pvt Ltd (IYMPL), Surajpur to start YTS at ICT, Melathiruvankatanathapuram, Tirunelveli.
2015 - 16	Community College subsumed by KAUSHAL Kendra. B. Voc. in Automobile started.
2015 - 16	TVS Service Training Workshop established.
2016 - 17	Automobile Skill Enhancement Centre (ASEC) – Level 2 Workshop established with the help of MSIL at a cost of Rs 20.00 lacs.
2016 - 17	DEI-TVS Programs in Sales and Service started. It will have 3-month classroom training and 9 months at dealership.
7.05.16	Development of Diesel-Electric Hybrid Vehicle
2017 - 18	Yoga introduced for TVS students.



# Curricular Enrichment : New Initiatives

## Joint Courses under MoU with Industry Partner:

- Automotive Skill Development Council (ASDC) recognized Two-wheeler Technician curriculum developed in collaboration with India Yamaha Motor Pvt Ltd (IYMPL), Surajpur.



# Collaborative Training Program on Safe Riding

- The department organizes programs on sensitizing students on road safety and teaching safe riding techniques in collaboration with People's Honda, authorized dealer of Honda Motorcycle Scooter India Ltd.



Introduction of the Workshop.



Demo. of Driving Simulator.



Student practicing Riding Skills.



# Visit by Mahindra Navistar Team for Training on CNG Vehicle Technology



# Achievements : Awards/Recognitions - Students

- Country's first batch of four students of NVEQF Diploma Vocational in Automobile receiving Diplomas from Hon'ble Union Minister of HRD, Dr M. M. Pallam Raju on 30<sup>th</sup> Sept 2013.



# Achievements : Awards/Recognitions - Students

- Top three students of Certificate in Motor Vehicle Mechanic (Four-wheeler) get Certificate of Merit (alongside) and cash awards @ Rs 12,000/-, Rs 10,000/-, and Rs 8,000/- for 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> position respectively, from Maruti Suzuki India Ltd.



# Some Outstanding Alumni



Name	Year of passing	Company	Designation	Mobile No.	Email Id
Amit Katara	1996	DCM Shriram Industries Limited	Senior Manager-HSE	9929590854	amitkatara@dcmsr.com; amitkatara9@gmail.com
Nitin	1996	Tirupati Balaji Traders Businessman	M.D.	9415104475	tbtlko@yahoo.in
Narendra Kumar	1996	Mahima Real Estate Pvt. Ltd (Jaipur)	GM - Service	9760023212 , 8875978978	nksengar@yahoo.co.in
Lokesh Arora	1996	SAI Group, New Delhi	Head - International Business Division (IBD)	9810505479	arora.lokesh@gmail.com
Vikram Kumar	1997	DXC Technology Noida	Sr. Professional	8373909142	vik6jul@gmail.com
Ashwani Garg	1997	Mahindra and Mahindra Ltd - Automotive Div	GM - Customer Care	9004955456	garg.ashwani@mahindra.com
Ashish Kundra	1997	Mahindra & Mahindra Ltd., Farm Equipment Sector	DGM-Sales Rajasthan	9829445603	kundra.ashish@mahindra.com

# Outreach



- **CERTIFICATE PROGRAMS**
- **DIPLOMA PROGRAMS**
- **B. VOC. AUTOMOBILE**

# Certificate and Diploma Programs



- Certificate in Motor Vehicle Mechanic (Four-wheeler) programme is currently being offered in 25 Information Centres (ICs) in the country.
- Certificate in Motor Vehicle Mechanic (Two-wheeler) programme is currently being offered in 5 Information Centres (ICs) in the country.
- Diploma in Automobile and B. Voc. in Automobile are being offered in 4 Information & Communications Technology Centres (ICT Centres).

# Extension Services and Consultancy



- Staff and students of the department take part in voluntary cleaning of the department & campus and work in agricultural fields every Sunday and during harvesting season.
- The department offers consultancy and repair & maintenance services to Radhasoami Satsang Sabha, Dayalbagh for its fleet of conventional and green (electric/solar-electric) vehicles.
- The department offers consultancy and repair & maintenance services to Radhasoami Training Employment & Adivasi Upliftment Institute, Timarni (Distt Harda – M.P.) for its fleet of vehicles.



# R & D – Green Technology

- The department has converted a Mahindra Van into a Solar-Electric Vehicle, in collaboration with Faculty of Engineering, DEI.



डीईआई के ऑटो मोबाइल इंजीनियरिंग विभाग ने इजाद की सोलर बस। • हिन्दुस्तान

## सूरज की रोशनी के सहारे तय होगा सफर

आगरा। ऊर्जा और ईंधन की बढ़ती जरूरतों को पूरा करने में सूरज की किरणें अहम भूमिका निभा सकती हैं। इस सोच को हकीकत में बदलने में जुटी है दयालबाग डीमंड यूनिवर्सिटी के इंजीनियरों की टीम। स्ट्रीट लाइट जलाने, खाना पकाने में सूरज की किरणों के सफल प्रयोग के बाद डीईआई की टीम ने सोलर बस का सफल परीक्षण किया है।

यूनिवर्सिटी के इंजीनियरिंग संकाय और टेक्निकल कॉलेज के संयुक्त प्रयासों से सन 1982 की एक पुरानी महिन्द्रा वैन को सोलर व्हीकल में बदलने का कमाल इसी साल किया गया। प्रोजेक्ट की

अगुवाई कर रहे इंजीनियरिंग फैकल्टी के प्रो. अजय सक्सेना ने बताया 'यह प्रयोग रूटीन वर्क से कुछ समय निकाल कर पूरा किया गया, इसीलिए दो महीने लग गए। लेकिन नतीजे उत्साहजनक आए हैं। यह वैन बीस लोगों को आराम से ढो सकती है। इसको पचास किलोमीटर प्रति घण्टा की रफ्तार दी जा सकती है। अभी देश में उन्नत सोलर पैनल की उपलब्धता में कुछ बाधाएँ हैं। इसके बावजूद यह मिनी बस या वैन दिन भर की चार्जिंग में दस किलोमीटर तक की दूरी तय कर सकती है'। प्रोजेक्ट में सहयोगी रहे टेक्निकल कॉलेज के ऑटोमोबाइल

विभाग के अध्यक्ष विजय प्रकाश मल्होत्रा ने बताया, 'सोलर पैनल की सीमित क्षमता होने की स्थिति में हम लोगों ने इस मिनी बस में बिजली से चार्जिंग का विकल्प दिया। लगभग आठ घण्टे में दस यूनिट के खर्च के बाद यह मिनी बस तीस किलोमीटर तक की दूरी आराम से तय कर सकती है। यूनिवर्सिटी में आए कई मेहमान इस डेमो व्हीकल की सवारी कर चुके हैं। सभी के लिए अनुभूति अनुभव रहा'। प्रोजेक्ट पर काम करने वाली टीम के अनुसार इस व्हीकल में डीजल इंजन के स्थान पर एक इलेक्ट्रिक मोटर को रखा गया है।



# R & D – Green Technology



- The department is in the process of converting a Scorpio model S10 into a Parallel Hybrid vehicle, in collaboration with Faculty of Engineering, DEI.



Underside of SUV with motor fitted.



Road test of the retrofitted SUV.

# Future Plans



- The department has plans to establish a Body Repair and Paint Shop facility in collaboration with Maruti Suzuki India Ltd, Gurgaon with an investment of Rs 80 lakhs to provide skilled denters and painters to the automobile industry.





Thank you