

6.3.3 Details of professional development / administrative training programmes organized by the Institution for teaching and non-teaching staff during the year

Title of the professional development programme organized for teaching staff	Title of the administrative training programme organised for non-teaching staff	No. of participants	Dates (from-to) (DD-MM-YYYY)	
			(from DD-MM-YYYY)	(to DD-MM-YYYY)
AICTE Approved ATAL FDP on "Automotive Safety"	--	44	05-12-2022	16-12-2022



Dr. S. R. Desai  
Head, Automobile Engg. Dept.



**REPORT**



**OF**



**Faculty Development Program**

**On**

**AUTOMOTIVE SAFETY**

5<sup>th</sup> -16, December 2022

Sponsored by

**AICTE Training and Learning (ATAL) Academy**

Organised by

Kasegaon Education Society's

**Rajarambapu Institute of Technology**

## **I. Objectives:**

1. To identify need of Automotive safety systems and its role in automobiles
2. To determine vehicle structural crashworthiness
3. To analyze and simulate vehicle in barrier impacts
4. To determine injury thresholds and apply trauma for analysis of crash injuries
5. To analyze pedestrian safety by use of pedestrian simulator
6. To design vehicle safety systems.

## **II. Expected Outcome:**

After the completion, the participants would be able to:

1. Understand need of Automotive safety systems and its role in automobiles
2. Determine vehicle structural crashworthiness
3. Analyze and simulate vehicle in barrier impacts
4. Determine injury thresholds and apply trauma for analysis of crash injuries
5. Analyze pedestrian safety by use of pedestrian simulator
6. Design vehicle safety systems.

## **III. Area Identified for ATAL FDP Online Session**

1. Road Accident status in India
2. Active Safety & Passive Safety
3. Occupant Safety
4. New Car Assessment Program
5. Safety Design of Electric Vehicle
6. Accident Avoidance Systems
7. Occupant injury prevention
8. Testing with Dummies
9. Crash Simulation
10. Future safe vehicles
11. Pedestrian Protection
12. Future roadmap for vehicle safety
13. Crash scenario of EV
14. New development in Automotive safety

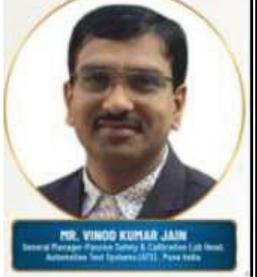
#### **IV. Area Identified for ATAL FDP Offline Session**

1. Design of vehicle for safety
2. Automotive Design for Pedestrian Safety.
3. Testing for New Car Assessment Program
4. Safety Testing of Vehicles on Test Tracks
5. Crash Simulation
6. Product demonstration
7. Industry Visit

#### **V. Industries Visits**

1. Vehicle Research Development Establishment,  
Under Ministry of Defense, Govt. of India,  
Ahmednagar.
2. Kararoo India Pvt. Ltd  
Ranjangaon MIDC, Ranjangaon,  
Pune
3. Takisha Industires Pvt. Ltd.  
Ranjangaon MIDC, Ranjangaon,  
Pune

## List of Resource Person with Photo

	Name	Topic Proposed	Address	Photo
01	Dr. D. G. Thombare	Road Accident status in India	RIT, Islampur	
02	Dr Sudhakar Umale	Introduction to Automotive Safety	Sardar Patel College of Engg. Mumbai	
03	Dr. Sachin Borase	Importance of Road Safety, Causes of accidents, mechanics of Accidents,	Rajashri Shahu College of Engg., Pune	
04	Vinod Jain	Basic Passive safety tests, injury criteria & equipment used in crash test of CAR as per regulation AIS & ENCAP.	General Manager <b>Automotive Test Systems</b> Vishal Complex, 3 <sup>rd</sup> Floor, Seva Nagar, Mumbai-Pune Road, Opp. Atlas Copco, Dapodi, Pune	
05	Dr. B. Ashok	Accident Avoidance Systems	VIT University, Vellore	
06	Divyan Jaju,	Scenario of Global NCAP and Upcoming Bharat NCAP in India		

07	Dr. B. Ashok	Safety Design of Electric vehicles	VIT University, Vellore	
08	Harpreet Singh Juneja	Basic elements of the passive safety and all about the safety testing for certification & NCAP ratings of Passenger Cars	SGS India Pvt. Ltd	
09	Dr. Dhinesh Balasubramanian	Recent research progress on battery fire issue in electric vehicles and its control measures	Mechanical Engineering Division, Center for Alternative Energy Research and Development , Khon Kean University, , Khon Kaen 40002, Thailand.	
10	Dr. Yogesh Bhateshwar	High Voltage Safety Systems for EVs	ARAI Pune	
11	Dr. R. M. Shinde	RIT, Islampur	Crash Simulation	
12	Jitendra Sing Gour	Tech Mahindra, Pune	Crash, Crashworthiness and Crash Testing	
13	Prof. S. G. Pawar	Retired Professor VJTI, Mumbai	Vehicle Design for Safety	

## V. Session Planning Week 1 - Online

Day	Date		Session 1 7.00-7.50 pm	Session 2 8.00-8.50 pm	Session 3 9.00- 9.30 pm
Day 1	Monday 5 <sup>th</sup> December, 2022		Inauguration	Introduction to Automotive Safety	Instruction Session for Journal Reflection
		Topic	Road Accident Automotive Safety Status in India		
		Speaker	Dr. D. G. Thombare RIT	Dr Sudhakar Umale, SPCOE Mumbai	Dr. D. G. Thombare RIT
Day 2	Tuesday 6 <sup>th</sup> December, 2022	Topic	Passive Safety	Ways to Minimize Effects of Accidents,	Journal Reflection G1
		Speaker	Dr. Sachin Borase	Dr. Sachin Borase	Dr. D. G. Thombare RIT
Day 3	Wednesday 7 <sup>th</sup> December, 2022	Topic	Basic Passive Safety Tests	Equipment's Used in Crash Test	Case Study Presentation
		Speaker	Vinod Jain Automotive Test Systems, Pune	Vinod Jain Automotive Test Systems, Pune	Dr. D. G. Thombare
Day 4	Thursday 8 <sup>th</sup> December, 2022	Topic	Accident Avoidance Systems	Scenario of Global NCAP and Upcoming Bharat NCAP in India	
		Speaker	Dr. B. Ashok VIT University, Vellore	Mr. Divyan Jaju, Automotive Safety Lab., ARAI	
Day 5	Friday 9 <sup>th</sup> December, 2022	Topic	Safety Design of Electric Vehicle		Journal Reflection
		Speaker	Dr. B. Ashok VIT University, Vellore.		
Day 6	Saturday 10 <sup>th</sup> December, 2022	Topic	Recent research progress on battery fire issue in electric vehicles and its control measures	High Voltage Safety Systems for EVs	Interaction and Valedictory
		Speaker	Dr. Dhinesh Balasubramanian Khon Kean University, Khon Kaen, Thailand	Dr. Yogesh Bhateshwar ARAI Pune	Mr. Shirish Mane RIT

## VI. Session Planning Week 2 – Offline

Day	Date	Session 1	Session 2		Session 3	Session 4
		09.30 am – 11.30 am	11.30 am – 1.00 pm	1.00 2.00	2.00 pm – 3.30 pm	3.45 pm – 5.00 pm
Day 1	Monday 12 <sup>th</sup> December, 2022	Inauguration	Safety testing for certification & NCAP ratings of Passenger Cars	Lunch	Laboratory Session on Crash, Crashworthiness and Crash Testing	Laboratory Session on Crash, Crashworthines s and Crash Testing
		Basic elements of the passive safety				
		Harpreet Singh Juneja	Harpreet Singh Juneja		Dr. R. M. Shinde	
Day 2	Tuesday 13 <sup>th</sup> December, 2022	Travelling to Ahmednagar for Industry Visit		Lunch	Visit to  <b>Automotive Testing Laboratory</b> Vehicle Research Development Establishment, Ahmednagar	
Day 3	Wednesday 14 <sup>th</sup> December, 2022	Visit to Karraro India Pvt Ltd. Ranjangaon		Lunch	Visit to Taykisha Industries Pvt. Ltd	
Day 4	Thursday 15 <sup>th</sup> December, 2022	<b>Crashworthiness and Crash Testing</b>  Jitendra Singh Gaur, Tech Mahindra, Pune			<b>Vehicle De4sign for Satety</b>  Prof. S. G. Pawar Retired Professor, VJTI, Mumbai	
Day 5	Friday 16 <sup>th</sup> December, 2022	<b>Journal Reflection</b> Team G2, G3, G4, G5		Lunch	<b>Short Answer Test</b>	<b>Feedback and Valedictory</b>
		<b>Journal Reflection</b> Team G6, G7, G8, G9				

## VII. List of Resource Person

	Name	Topic Proposed	Address
01	Dr. D. G. Thombare	Road Accident status in India	RIT, Islampur
02	Dr Sudhakar Umale	Introduction to Automotive Safety	Retired Professor, SP College, Mumbai
03	Dr. Sachin Borase	Causes of accidents, Mechanics of Accidents, Ways to minimize effect of accidents.	Rajashri Shah College of Engineering, Pune
04	Vinod Jain	Basic Passive safety tests, injury criteria & the equipment used in crash test of CAR as per regulation AIS & ENCAP.	GM,Passive Safety lab. Automotive Test Systems, Pune
05	Dr. B. Ashok	Accident Avoidance Systems	VIT University, Vellore
06	Divyan Jaju,	Scenario of Global NCAP and Upcoming Bharat NCAP in India	Automotive Research Association of India, Chakan, Pune
07	Dr. B. Ashok	Safety Design of Electric vehicles	VIT University, Vellore
08	Dr. Dhinesh Balasubramanian	Recent research progress on battery fire issue in electric vehicles and its control measures	Center for Alternative Energy Research, Khon Kean University, Thailand.
09	Dr. Yogesh Bhatেশwar	High Voltage Safety Systems for EVs	Automotive Research Association of India, Pune
10	Harpreet Singh Juneja	Basic elements of the passive safety and & NCAP Ratings of Passenger Cars	SGS India Pvt. Ltd Mumbai
11	Jitendra Sing Gour	Crashworthiness and Crash Testing	Tech Mahindra, Pune
12	Prof. S. G. Pawar	Laboratory Session on Vehicle Design for Safety	Retired Professor, SP College, Mumbai

13	Mrs, Riya Thakar	Functional Safety	Manager, Mahindra Electric Mobility Limited
14	Dr, Anindya Deb,	Creative Automotive Research in Laboratory,	Indian Institute of Science, Bangalore,

### VIII. List of Laboratory Experts

Sr. No.	Name	Topic of the Session	Institute
1	Dr. R. M. Shinde	Laboratory Session on Crash Simulation	RIT, Islampur
2	Prof. S. G. Pawar	Laboratory Session on Vehicle Design for Safety	Retired Professor, SP College, Mumbai
3	Jitendra Sing Gour	Laboratory Session on Crash Testing	SGS India Pvt. Ltd Mumbai
4	Harpreet Singh Juneja	Laboratory Session on NCAP Ratings of Passenger Cars	Tech Mahindra, Pune

### IX. List of Participants

Sr. No.	Name	Institute Name
1	Mr. Pravin Sambhaji Gosavi	KIT's College of Engineering, Kolhapur
2	Mr. Sanjay Tukaram Satpute	Rajarambapu Institute of Technology Rajaramnagar
3	Mr. Shirish Subhash Mane	Rajarambapu Institute of Technology, Islampur, Maharashtra
4	Mr. Jamadade Sunil Sharad	KIT's College of Engineering, Kolhapur
5	Dr. Pravin Ramchandra Kubade	KIT's College of Engineering, Kolhapur
6	Mrs. Jahida Niyaz Khan	KIT's College of Engineering, Kolhapur
7	Mr. Mihir Hemant Kulkarni	KIT's College of Engineering, Kolhapur
8	Mr. Abhijit Rajaram Shinge	Tatyasaheb Kore Institute of Engineering and Technology Warananagar Kolhapur
9	Mr. Surajkumar Goraksha Kumbhar	Rajarambapu Institute of Technology, Sakharale
10	Mr. Naeem Balechand Tamboli	Vidya Pratishthan's Polytechnic College

11	Mr. Ankit Gupta	Acropolis Institute of Technology and Research Indore
12	Mr. Tanaji Balawant Shinde	Sanjay Ghodawat University Kolhapur
13	Mr. Abhijit Arun Walwadkar	New Polytechnic Kolhapur
14	Mr. Patankar Vaibhav Anil	New Polytechnic Kolhapur
15	Mr. Nikhil Surgonda Patil	Sharad Institute of Technology Polytechnic
16	Mrs. Pragna Patel	LDRP-ITR
17	Mr. D. Nanda Kumar	Sriram Engineering College
18	Dr. Abhijeet Shah	Rajarambapu Institute of Technology
19	Mr. Rajaram Shinde	Rajarambapu Institute of Technology
20	Dr. Sanjay Ramchandra Kumbhar	Rajarambapu Institute of Technology, Rajaramnagar
21	Mr. Lale Ajinkya Prabhakar	RAIT Nerul
22	Mr. Ramdas Shinde	Sanjivani K. B. P. Polytechnic Kopergaon
23	Mr. Amey Gaurvadkar	Rajarambapu Institute of Technology, Rajaramnagar
24	Mr. Mahesh Deshpande	RIT, Rajaramnagar
25	Mr. Manzooramahad Mohamadshafi Mirza	Rajarambapu Institute of Technology, Rajaramnagar
26	Mr. Mukund Vishnu Kavade	Rajarambapu Institute of Technology
27	Dr. Dhananjay G. Thombare	Rajarambapu Institute of Technology
28	Mr. Kadane Sandeep Madhukar	KIT's College of Engineering, Kolhapur
29	Dr. Chandan Kumar	SKIT
30	Mr. Nirmalkumar S	Shree Venkateshwara Hi-Tech Engineering College
31	Mr. Bharat Ashok Tare	DKTE'S Yashwantrao Chavan Polytechnic Ichalkaranji
32	Mr. Yogesh Sadashiv Patil	Rajarambapu Institute of Technology
33	Dr. Sanjay D Yadav	RIT, Rajaramnagar
34	Mrs. Rajni Choudhary	Government Engineering College Bharatpur

35	Mr. Sreenivasaraja N	Excel Engineering College
36	Mrs. Supriya Sagar More	RIT, Sakharale
37	Mr. Pankaj S. Ghatage	Rajarambapu Institute of Technology, Isalmpur
38	Mrs. Jeevananthini N	Adhiyaman Arts And Science College For Women
39	Mr. Sandesh Balwant Sangale	K.I.T.'s College of Engineering (Autonomous), Kolhapur
40	Mr. Rajendra Shamraw Sargar	Rajarambapu Institute of Technology
41	Mr. Parvej Najaruddin Fakir	RIT, Rajaramnagar
42	Mr. Pravin Ashokrao Desai	Rajarambapu Institute of Technology Rajaramnagar Diploma
43	Mr. Timmappa Hosakoti	Motichand Lengade Bharatesh Polytechnic Belagavi
44	Mr. Mathiarasu D	Vivekanandha College of Technology for Women

#### **X. The inauguration Function**

The inauguration was held on 5<sup>th</sup> December, 2022 online at 07:00 pm. Chief Guest of the program was Prof. Dr. Sushama Kulkarni, Director, RIT and was held in presence of Dr. S. K. Patil, Dean Academics, Dr. S. R. Kumbhar, Head, Automobile Engg. Dept. of RIT and all participants.

Co-coordinator Mr. Shirish S. Mane welcomed all dignitaries and participants for inaugural function. Coordinator Prof. Dr. D. G. Thombare briefed about objectives of the ATAL FDP on Automotive Safety and addressed the participants about online-offline Hybrid mode FDP and various initiatives by ATAL Academy. Dr. Sajay Kumbhar Head Automobile Engg. Dept. introduced the department to participants. Prof. Dr. Sushama Kulkarni, Director, RIT welcomed participants and briefed about need of Automotive Safety. Hon. Director informed all participants to take interest in FDP sessions and make it a learning event. Mr. Shirish S. Mane coordinator proposed the vote of thanks.

#### **IX. The Valedictory Function**

Co-coordinator Mr. Shirish S. Mane welcomed all dignitaries and participants for valedictory function. Dr. S. R. Kumbhar, Head, Automobile Engg. Dept. of RIT

and all participants. Coordinator Prof. Dr. D. G. Thombare briefed about the session topics and speakers of the sessions. He took brief review of week 1 and week 2 activities and industry visits. Few participants have given feedback and expressed satisfaction from the workshop. Dr. S. R. Kumbhar, Head, Automobile Engg. Dept. addressed participants and appeal to use learning from FDP in to teaching and research. The program ended with vote of thanks.

#### XI. Expenditure details of the program

Sr. No.	Particulars	Rate Rs	Amount Rs.
01	Remuneration to the speakers 14 Speakers	5000.00	70000.00
02	Remuneration to the Laboratory Faculty Instructor 03 Laboratory Instructor	5000.00	15000.00
03	Remuneration to Coordinator	10000.00	10000.00
04	Remuneration to Co-coordinator	7000.00	7000.00
05	Travelling expenditure of instructor	At actual	8000.00
06	Remuneration to Computer Programmer	1000.00	1000.00
07	Travelling expenses for industry visit	15000.00	15000.00
08	Breakfast, lunch and dinner expenses during industry visit to Pune and Ahmadagar	5000.00	5000.00
09	Reward Books to participants	500.00	10000.00
10	Food expenses during offline session in second week (35X350X5)	350.00	56000.00
11	Food expenses during offline session in second week (35X350X5)	350.00	56000.00
12	Training Material, Handouts and Resource Material	560.00	28000.00
13	Miscellaneous expenditure		2500.00
		<b>Total</b>	<b>222500.00</b>

XII. Some photographs of the function and visit





Takisha Industires Pvt. Ltd.





## XII. Sample Attendance For Online Sessions

