



Special Newsletter on **ACCIDENT FREE COCHIN** ONE DAY WORKSHOP

Ensuring Safe and Inclusive Mobility towards achieving a Sustainable Cochin



Organisers



NATIONAL SAFETY COUNCIL
— KERALA CHAPTER

Sponsors



Geta glimpse of the Inaugural Session

The one-day workshop on Accident-Free Cochin solemnly began at 9.50 a.m. with a silent prayer, followed by a road safety oath administered by Shri V.S. Sanjay Kumar, Principal Scientist & Head Traffic Engineering and Safety Division KSCSTE-NATPAC. Yes, being a safety mantra, we should affix it in our mind and reflect it in our behavior each and every moment we spent on our roads. (see the pledge and be a follower of it.)

P Pramod, Chairman of the National Safety Council's Kerala Chapter, delivered the welcome speech. He emphasized the necessity of considering accidents as national disasters, such as COVID 19. He noted that most incidents are caused by dangerous driving habits rather than hazardous road conditions. He highlighted the structure of the event which includes the panel of experts discussing the three Es of road safety: engineering, education, and enforcement.

Greater Cochin Development Authority (GCDA) Chairman, K. Chandran Pillai offered the presidential speech. He appreciated the presence of participants



from various cross sections of the society, including law enforcement, labour union members, non-governmental organizations, and so on. He expressed that the framework of this mission is set in such a way that, it will continue till the purpose of Accident-free Cochin is accomplished.

Hon'ble. Mayor of Kochi Municipal Corporation (KMC), Adv. M Anil Kumar, lighted the lamp and made the inaugural address. He thanked GCDA and other authorities for organizing such a workshop. He asserted the need of collaboration across different agencies in obtaining positive outcomes for the society. He guaranteed that the Kochi Municipal Corporation (KMC) will take the lead in implementing the workshop's proposals and recommendations. He anticipated that the initiatives would result in obvious improvements during the present corporate



Special Newsletter

ACCIDENT FREE COCHIN ONE DAY WORKSHOP

council's tenure and hoped to have a workshop to disseminate the results which will be accrued during this tenure.

In his message of Felicitation, Loknath Behra (Retired IPS), Managing Director of Kochi Metro Rail Limited (KMRL), noted that coordination between various departments is minimal and each stake holding department should take it as a challenge and come forward to work as a coordinated team so that the mission on road safety shall be achieved. To achieve the anticipated reduction in traffic accidents, drivers' attitudes must alter. Due to the high chance of severe rain, the existence of pavement surface defects and geometric deficiencies in the road also adds to the causes for the road crashes in Kerala, but those alone should not be considered as the causes for road crashes. He also highlighted the wide transport opportunities existing in Cochin and the need to develop

a well-integrated multi modal transport hub. He hopes to implement a single ticketing system that can be used for all modes of public transportation, therefore reducing the number of private vehicles in Kerala and resolving the parking issue. Additionally, he encouraged cycling in the city. He expects that Kochi would become the happiest city in the country if accidents were eliminated by 2047.

As a token of love and gratitude, mementos were given to the distinguished guests by Shri. Chandran Pillai, Director of KSCSTE-NATPAC, Prof. (Dr.) Samson Mathew, who delivered the vote of thanks, stressed the need for achieving the mission statement of the workshop "Ensuring Safe and Inclusive Mobility towards achieving a Sustainable Cochin" in a coordinated way and thanked all the dignitaries, speakers and delegates in joining hands for achieving the target.





Road Safety Pledge




- ഞാൻ വാഹനം ഓടിക്കുമ്പോൾ കാൽനടയാത്രക്കാർ, സൈക്കിൾ യാത്രക്കാർ, സ്കൂൾ കുട്ടികൾ, പ്രായമായവർ, ഭിന്നശേഷിക്കാർ എന്നിവർക്ക് എപ്പോഴും മുൻഗണന നൽകും
- ഞാൻ എല്ലായിപ്പോഴും റോഡ് നിയമങ്ങൾ അനുസരിക്കും
- ഞാൻ മദ്യപിച്ചു വാഹനം ഓടിക്കുകയില്ല
- ഞാൻ വാഹനം ഓടിക്കുന്ന സമയത്ത് മൊബൈൽ ഫോൺ ഉപയോഗിക്കുകയില്ല
- ഞാൻ കാർ, ജീപ്പ് തുടങ്ങിയ നാലു ചക്ര വാഹനങ്ങളിൽ യാത്ര ചെയ്യുമ്പോൾ എപ്പോഴും സീറ്റ് ബെൽറ്റ് ധരിക്കും
- ഞാൻ ഇരുചക്ര വാഹനങ്ങളിൽ യാത്ര ചെയ്യുമ്പോൾ എപ്പോഴും ഹെൽമെറ്റ് ധരിക്കും
- ഞാൻ വാഹനം ഓടിക്കുമ്പോൾ നിർദ്ദിഷ്ട വേഗ പരിധി മറികടന്നു യാത്ര ചെയ്യുകയില്ല
- ഞാൻ ഓരോ യാത്രയ്ക്ക് മുമ്പും വാഹനത്തിന്റെ ക്ഷമത ഉറപ്പ് വരുത്തും
- ഞാൻ ഒരിക്കലും നിർദ്ദിഷ്ട പ്രായം ആകാത്തവരെ വാഹനം ഓടിക്കുന്നതിനു പ്രോത്സാഹിപ്പിക്കുകയില്ല
- ഞാൻ വാഹനം ഓടിക്കുമ്പോൾ എപ്പോഴും മറ്റ് വാഹനങ്ങളിൽ നിന്ന് സുരക്ഷിതമായ അകലം പാലിക്കും



Technical Session 1 : Road Safety Activities in Kerala

Shri. T. Elangovan, Executive Director, Kerala Road Safety Authority (KRSA) has briefed about the Road Safety Activities in Kerala. During this session, he emphasized the fact that 11.3 % crash fatalities of Kerala takes place inside Ernakulam district. Also, among 4598 blackspots in Kerala, 703 are located in Ernakulam. This amounts to about 14.9 % of overall number of black spots. During the talk he mentioned that “Accident free Cochin” project will be a starting point for achieving a wider mission of “Accident free Kerala.”

He explained about “Safe Kerala Project”, which is a flagship program of MVD. The objectives of the program are to ensure reduction of road crashes by 50 % in five years, to ensure zero growth in road fatalities & severities and also the sustainable enforcement of traffic rules. Currently district level control rooms are being setup and fully automated systems will be commissioned shortly.



Indicator	State average	Ekm District average	Percentage
Accidents	34,095	5038	14.7%
Road Deaths	3,616	410	11.3%
Blackspots	4598	703	14.9%
Critical road sections	333	33	10%

He was enthusiastic about the “Sabarimala Safe Zone Project”. This project was aimed to ensure safer mobility, to reduce delay, to provide repair facilities and offering quick shifting facilities for accident victims along Sabarimala roads. This resulted in reduction of delays and fatalities. He also mentioned about the road safety activities initiated along with Police force. It includes Modern Traffic Enforcement Systems and Save Our Fellow Travellers (SOFT). Regarding road safety works tasked to PWD, he explained about Blackspot rectification Programme 2019 & School Zone treatment Programmes. In Blackspot management programme 2021, 330 critical road sections were identified and the target was to reduce 20 % fatalities by the end of 2022.

As part of traffic education and road safety advocacy program, *Surakshitha Yathra* – Handbook on Road safety was prepared targeting schools and awareness campaigns will be given through various media including FM radios. Other initiatives by KRSA include formation of a road safety volunteer force for ensuring a rapid response during accident situations. His vision is an accident-free Cochin with an emphasis on zero fatalities. He pointed out that the implementation of such programs must not be the sole responsibility of PWD/MVD only, but also the responsibilities of each and every stakeholder.



Technical Session 2 : Crash Data Management



Dr.Srinath Raghavan, Chief Manager, RBG Labs, IIT Madras discussed the significance of Crash Data Management in his session, and provided an overview of the Integrated Road Accident Database (iRAD) software and the potential benefits it has in terms of reducing crashes.

He explained a fifth E for road safety engineering, "Empathy," which was considered in the Integrated Road Accident Database (iRAD) programme, which is considered for understanding the driver behavior. He described the chronology of a crash, including the Pre, Peri, and Post phases, as well as the players in each stage. Mindset transformation, skill growth, and long-term disruption are among the goals of iRAD deployment.

He compared existing accident scene process with workflow built for iRAD software to highlight the benefits of iRAD software. He further claimed that iRAD has potentials for horizontal as well as vertical integration – departmentwise as well as hierarchywise.

iRAD was launched in six states and is constantly enhanced via breakthroughs in design and analytics. Currently, 3.5 lakh crashes have been recorded in the iRAD database. MoRTH is in charge of national coordination and execution of iRAD. NICS Inc. is responsible for creation and execution of iRAD, while IIT Madras is responsible for the design and analytics. He stated that iRAD implementation in Kerala is underway, and that 15,000 registered crash cases are fed into the system on a daily basis, with 622 cases from Ernakulam city and 200 cases from Ernakulam Rural.

He concluded his speech with the mention of ambitious eRAD project.

Technical Session 3 : Identification and Rectification of Crash Prone Location

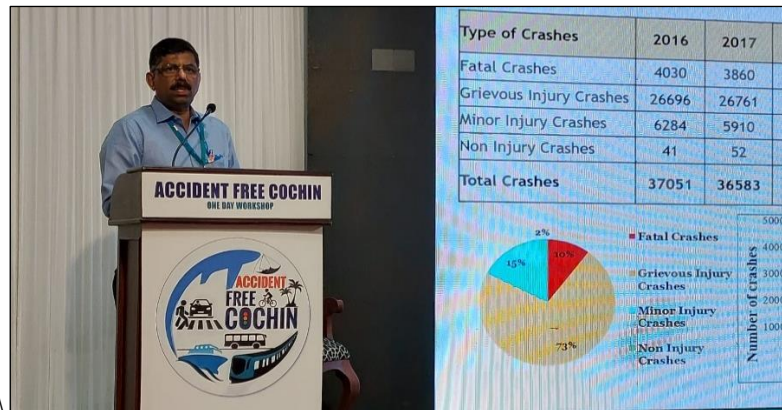
This session was jointly handled by **Prof. (Dr.) Samson Mathew**, Director, KSCSTE-NATPAC along with **Shri Ebin Sam**, Scientist and **Shri Anish Kini**, Scientist, NATPAC.

Ernakulam district has recorded highest number of crashes and victims in the state during the last five years (2017 - 2021). Around 2100 people died and 28500 persons were injured on the roads in Ernakulam district during this period. Fatalities per 100 crashes have been showing an increasing trend over the past five years in the district.



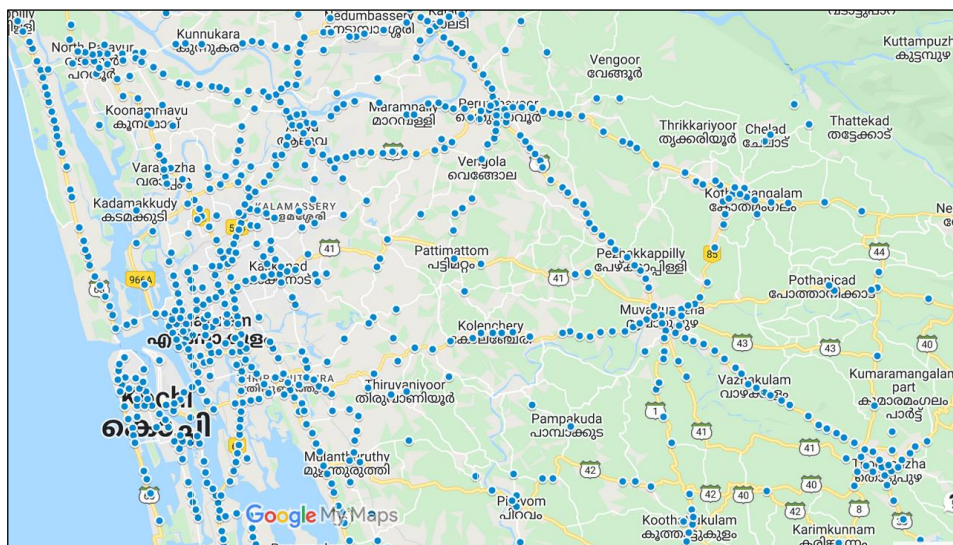
Special Newsletter

ACCIDENT FREE COCHIN ONE DAY WORKSHOP



Around 37% of crashes in Ernakulam district occurred within Ernakulam City Police Limits, which comprises of Ernakulam Town South, Ernakulam Town North, Palluruthy, Infopark, Ernakulam Central, Kalamassery, Fort Kochi, Hill Palace, and Mattancherry Circles. In 2021, around 1780 crashes occurred within Ernakulam City causing 141 fatalities and 1758 injuries.

Around 23% of the victims in road crashes within Ernakulam City were either non-motorised users comprising of Pedestrians or Cyclists. Among Vehicles involved in road crashes, around 61% were two wheelers, followed by Car/Jeep Category (21%), Three wheelers (5%), Buses (4%) and Lorry/Trucks (3%).



Blackspots in Ernakulam District

In the year 2021, 18% of crashes in Ernakulam City were reported near Bus Stops. Around 25% of collisions were Hit from Side/Right Angle Collision followed by Rear End Collision (20%), Hit Pedestrian Collision (19%) and Head on Collision (10%).

More than 70% of crashes occurred away from the intersections. In the Ernakulam City, 68% of crashes occurred at stretches, where median is not provided and around 67% of crashes occurred at straight sections. Among the intersections in Ernakulam City, 55% of the crashes occurred at T intersections and 32% of crashes at Four arm intersections. More than 60% of crashes occurred at uncontrolled intersections in Ernakulam City.



Technical Session 4 : Importance of Road Safety Awareness and Training

Shri Dilip Madhavan, Manager(Fire), Petronet LNG Ltd, and **Shri Abdul Manf A**, Assistant General Manager (Safety), Cochin Shipyard Ltd, led this session.

Shri.Dilip Madhavan began the lecture by discussing the background of the National Safety Council (NSC), its vision and mission, and its affiliated organisations. He also briefed on their present initiatives in the field of road safety, including Road safety awareness seminars and webinars, Road safety campaigns (publication of e-magazines, posters, message dissemination through FM, etc.), Training on 'defensive driving' via SME's and Road shows through college students.

Road Safety Education and Awareness for all target groups was discussed by Shri Abdul Manf A. He also said that Road safety culture is now a reactive culture, but it should evolve into a dependent, independent and an interdependent culture. He pointed out how people's behavior changes depending on their environment. Education, infrastructure, and enforcement can all work together to tackle this problem. The importance of road safety education and awareness in various target groups, including driving license holders, engineers engaged in the design and maintenance of roads, schoolchildren, college students, enforcement agencies, hospitals/paramedics/first-aiders, clubs/resident associations, and shops, was also discussed. National Safety Council (NSC) has also been acknowledged for its role in achieving "The Vision, Accident Free Cochin." Monthly lectures, magazines, safety posters, social media campaigns, road safety audits, road accident investigations, and trainings for diverse target groups are just a few of the offerings for road safety.

The Department of Factories and Boilers has introduced a mobile safety training unit called SURAKSHARADHAM for imparting a state-level safety awareness programme to factory workers and students on various aspects of safety, such as General Safety, Planning for emergencies and emergency preparedness, Chemical safety, Fire safety, Job-specific safety, and Road Safety. From 2017 to 2022, 13,000 employees, 30,500 students, and 30,000 members of the general public were taught using this technique.

Technical Session 5: Data driven traffic enforcement strategies

Dr. Ravikumar P, Former Senior Director, C-DAC Thiruvananthapuram has discussed the significance of a data-driven strategy in traffic and transportation analyses. Initially, he emphasised the quantum of data produced by smart phones, sensors, linked products, and so on. He cited the 'Suraksha Mitra' programme, which monitors 3.8 lakh cars in Kerala, including school buses, as an example.



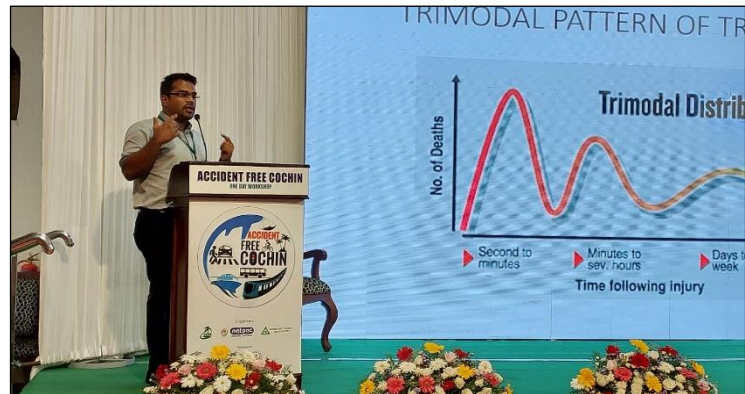


The data created as a result of this is massive. Data is critical for a wide range of ITS applications. He went into detail on the numerous parts of IT that demand big data. It contained features such as enforcement, adaptive signalling, incident detection, ANPR, route planner, and more. He mentioned surrogate safety and the need of data in it. He also discussed data collecting from numerous sensors installed in automobiles, such as a gyroscope, accelerometer, magnetometer, GPS, and so on.

He highlighted many areas for improvement using big data analysis for traffic management and planning.

Technical Session 6 : Significance of Trauma Care Management

Dr. Kevin Mohan Mathews emphasized the importance of the 'Golden Hour' after the crash incident. He also emphasized the significance of both morbidity and mortality. A spinal damage or paralysis might result from inappropriate management of accident patients, according to this expert. Pre-hospital care is still in its formative stages in Kerala, despite the fact that the state's healthcare facilities are world-class. Pre-hospital treatment should include extrication such as moving patients without damaging their spines using a Kendrick extrication device (KED). He explained about various system of emergency transportation like ACLS/ ICU Ambulance etc. The patient should be shifted to a hospital with good trauma care facilities within the golden hour with proper care.



Action Plan

On the basis of various technical deliberations, the action plan for achieving the mission of accident free Cochin and possible solutions were discussed in the forum. The members involved were;

1. Shri. Sanjeev S, Superintending Engineer, PWD (National Highway)
2. Smt. Susan Solomon Thomas, Assistant Executive Engineer, PWD(Roads)





Special Newsletter

ACCIDENT FREE COCHIN ONE DAY WORKSHOP

3. Shri. Shine H Pallath, Assistant Executive Engineer, Kochi Municipal Corporation
4. Shri.Rejo P Joseph, ACP, Traffic East Sub division Kochi City
5. Shri. Shaji Madhavan, District Transport Commissioner, CZII, Ernakulam

Major outcomes of the action plan program includes;

1. Promote pedestrian safe infrastructure facilities such as safe footpaths, safe pedestrian corridors, etc.
2. Implement design changes for various important intersections, blackspot treatments, etc.
3. Improve the overall conditions of the road network by incorporating modern technologies and readymade rectification strategies.
4. Develop a systematic approach for enhancing coordination among various stake-holding departments
5. Implement stringent enforcement by utilising advanced IT tool kits
6. Conduct a wide spectrum of road safety awareness measures utilising various enforcement departments as well as NGOs, Students and Youth, Cells etc.
7. Adopt a new technology for repair and maintenance of pavements



Action plan presentation, Kerala Motor Vehicles Department



Special Newsletter

ACCIDENT FREE COCHIN ONE DAY WORKSHOP

