



INDIA CHAPTER

International Road Federation  
Fédération Routière Internationale  
Federación Internacional de Caminos  
अंतरराष्ट्रीय सड़क संघ

# NEWSLETTER

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## NEWS IN BRIEF

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### IRF Mission

To promote the development of roads and road networks that enable sustainable access and mobility for all

### IRF Vision

A world of safe, sustainable, and efficient roads and road networks

### IRF Values

Commitment to safe, smart & sustainable roads

## EDITORIAL BOARD

Chief Executive Officer  
Veena Nabar

## FROM THE CHAIRMAN'S DESK



Dear Friends,

*I warmly greet all of you, IRF-IC members and other well wishers, all of our stakeholders in the noble cause of road safety.*

This is my first address to you after my taking over as Chairman, IRF-IC, which I did on 1<sup>st</sup> November 2020. It is indeed a pleasure to be actively involved in this organisation, with which I have been associated for a long time, earlier in my capacity as a member of the Governing Council.

We have just passed through a traumatic period of the Covid-19 lockdown and its aftermath. We are still to emerge from this pandemic, which continues to afflict people all over the globe. However, with the vaccination process having been successfully initiated, we hope that the situation will greatly improve in the days ahead and we shall be restored to happier conditions.

IRF-IC, as you are all aware, has been also greatly affected by the economic turbulence of the country, which has affected all our members. We are a membership based organisation and therefore have felt deeply the distress caused to all, by the economy being put on hold for a major part of the last year. We have tried to keep on with various activities during this period, and the Newsletter has been one such link to all of you. We have also had several meetings including the long due Governing Council & General Body meetings, which were held in September 2020.

More recently, in a concerted effort to gear ourselves up and overcome the challenges we have faced, we have initiated a series of Webinars titled "Road Safety Challenges in India and Preparation of An Action Plan". The plan is to have 12 webinars during this year 2021 and discuss all aspects covering the 5Es of road safety – Engineering, Education, Enforcement, Emergency Care and Environment. The resulting churning of intellects through this process is expected to contribute towards a well thought out Action Plan, which can be implemented for achieving the UN Decadal targets of Road Safety 2030.

We have so far had two of the planned webinars on the 9<sup>th</sup> February and 12<sup>th</sup> March 2021 on the subjects of "Road Safety Engineering & Challenges" and "Road Safety Engineering for Improved Safety" respectively. In this Issue, we bring you a flavour of the same. The third Webinar on "Safer Roads for Safety of All Road Users" is scheduled to be held on 6<sup>th</sup> April 2021. We will be sending you the formal invite regarding the same shortly. But I take this opportunity to warmly invite all of you and request you to make it a point to be with us, as in the final analysis, our organisation and its progress is a synthesis of your ideas and efforts and we shall be stronger with your support.

I must also thank all of our generous Sponsors - Gawar Construction Ltd., Gayatri Projects Ltd., G.R. Infraprojects Ltd., Dineshchandra R. Agrawal Infracon Pvt. Ltd. and Diamond Construction Company and supporting organisations - iRAP, Prince Michael International Road Safety Award, FIA, IndiaRAP who have encouraged us to go ahead with our ambitious targets and hopes for an implementable Action Plan that will bring in speedy results.

In the first Webinar, which was also an inauguration of the Series by the Hon'ble Union Minister of Road Transport & Highways and MSME, Mr. Nitin Gadkari, he expressed his vision to see the UN Decadal goals achieved by 2025. In this Issue, we also bring you his inspiring speech on the occasion.

If this ambitious goal is to be achieved, everyone will need to join hands and we would bank upon your support in all ways. We would be happy to have your inputs by way of ideas and suggestions regarding our Webinars and other activities and seek from you your support, financial and otherwise: Timely payment of membership dues yes, but also Sponsorship and CSR funding of our activities or any other activity that you feel is important for the road sector and which IRF-IC can execute on your behalf.

This is for me, just the beginning of a symbiotic relationship with you, a relationship with IRF-IC, which has been there long before my entry as the Chairman. I look forward to its thriving in all ways and your commitment to be with us in our endeavours.

I thank you all once again and look forward to hearing from you and exchanging ideas.

Regards and best wishes,

**S. Gangopadhyay**  
Chairman

## Recent Activities of IRF – IC



### A. IRF-IC Webinar Series on “Road Safety Challenges in India & Preparation of an Action Plan”

IRF-IC has launched a Webinar Series titled **Road Safety Challenges in India & Preparation of an Action Plan** intended for widespread awareness building and education of all stakeholders as well as the Society at large.

India recorded an average of approximately 414 deaths a day in 2019, leading the global charts of total road accident deaths, with a share of around 11%. The UN Decadal Goals for road safety have set a target of reducing total on road accident deaths by 50% by 2030.

India's Hon'ble Union Minister of Road Transport & Highways and MSME, Mr. Nitin Gadkari has envisioned achieving the UN goals well in advance and by the year 2025. If this target is indeed to be achieved, India with the participation of all road stakeholders needs to gear up on all road related fronts, to take necessary action that can have the required results. It is precisely with the aim of generating such an *Action Plan for Implementation* that the IRF-IC has embarked upon this consultative webinar series.

The first Webinar of the Webinar Series which was flagged off on 9th February 2021 was organised to commence during the Annual Road Safety Month 2021 which was flagged off on 9th February 2021 and most appropriately was graced by the Hon'ble Union Minister of Road Transport & Highways and MSME, Mr. Nitin Gadkari as the Chief Guest. The Hon'ble Minister inaugurated the Webinar series as also the first Webinar on “Road Safety Engineering & Challenges” on 9th February 2021.

The Webinar Series is structured to have 12 webinars, of which 2 webinars have already been held, with the remaining Webinars proposed to be held over the forthcoming months of the year 2021. The broad list of planned Webinar topics aim to cover the 5Es of Road Safety namely Engineering, Education, Enforcement, Emergency Care and Environment, in all their aspects.

The Webinar Series has the valuable support of various international organisations including FIA, Prince Michael International Road Safety Award, iRAP & IndiaRAP. Eminent Sponsors such as M/s. Gawar Construction Ltd., M/s. Gayatri Projects Ltd., M/s. G.R. Infraprojects Ltd., M/s. Dineshchandra R. Agrawal Infracon Pvt. Ltd., and M/s. Diamond Construction Company are gratefully acknowledged.

The first two webinars of the Series have already been held on 9th February 2021 and 12th March 2021. We feature brief reports on these below.



#### a. Inaugural Webinar on “Road Safety Engineering & Challenges” – 9th February 2021

The Inaugural Webinar on “Road Safety Engineering & Challenges” was held on 9th February 2021. The Hon'ble Union Minister of Road Transport & Highways and MSME, Mr. Nitin Gadkari, inaugurated the Webinar Series as also the first Webinar. Dr. S. Gangopadhyay, Chairman, IRF-IC welcomed the Hon'ble Union Minister and introduced the Series and moderated the Technical Sessions. The Keynote Address on the occasion was delivered by Mr. K.K. Kapila, President (Emeritus), IRF Geneva.

The Technical sessions had three eminent Speakers on the occasion. The Speakers and their topics are as follows:-



1. Prof. P.K. Sikdar, President, ICT Pvt. Ltd. (Road Safety Scenario & Challenges in India).
2. Dr. K. Ravinder, Head (TPE), CRRI – (Road Safety Audit & Inspection – A Pro-Active Measure).
3. Prof. Sewa Ram, HoD (Transport Planning), SPA – (Planning & Design of Safe and Forgiving Roads).

The texts of the Hon'ble Minister's speech and the Keynote Address by Mr. K.K. Kapila follow.

The details of the Webinar and the recorded version may also be seen on the IRFIC website [www.indiairf.com](http://www.indiairf.com).

## Speech of the Hon'ble Union Minister of Road Transport & Highways and MSME Mr. Nitin Gadkari.....

*Mr. Jean Todt, UN Secretary General Envoy for Road Safety and President FIA; Prince Michael of Kent, Founder of Prince Michael International Award of Road Safety; Ms. Lucino Lorro, Chair, Road Safety Committee, United Nations; Mr. Bill Halkias, President, IRF Geneva; Dr. S. Gangopadhyay, Chairman, IRF India Chapter; Mr. K.K. Kapila, President (Emeritus), IRF; Mr. T.K. Amla, Secretary, IRF India Chapter; Prof. P.K. Sikdar, Advisor, Road Safety, IRF; Prof. Sewa Ram, Head, School of Planning and Architecture; Dr. K. Ravinder, Chief Scientist, CRRI; all distinguished Speakers, Guests, Invitees from India and abroad and all my dear friends, Ladies and Gentleman.*

*I am pleased to be here with you all for the inauguration of the Webinar series being launched by the IRF India Chapter on the very vital theme of "Road Safety Challenges in India and Preparation of an Action Plan". Road Safety is a public health issue across the world and it is truly a challenge for the entire developing world as well as for India, where we have maximum fatalities and limited resources. In India, 1.5 lakh people die and more than 4.5 lakh are injured in 4.5 lakh road accidents every year, resulting in social economic losses from accidental deaths equivalent to 3.14% of national GDP. 70% of the deaths are in the working age group of 18-45 years. There are 415 deaths per day in road accidents in India. Actually, when we compare with the present problem which we are facing because of Covid 19, compared with deaths due to Covid also, our death percentage is very high. It is very unfortunate that we have so very many deaths every day, every year.*



*I would say this scenario is far more serious than the Covid 19 pandemic and it is becoming an alarming situation for us year on year. Unfortunately, we stand at the position number one in roads accidents in the world, ahead of US and China. Being a Transport Minister, I am sensitive to this and seriously concerned about this.*

*Since the last 31 years, we were observing annually a Road Safety Week. However, in the 32<sup>nd</sup> year of this activity, we have planned it as a Road Safety Month from 18<sup>th</sup> January to 17<sup>th</sup> February 2021. I hope that the month long period will give enough time to undertake many activities for promoting road safety across the country.*

*I have been told about the total content of the 12 Webinar series to be undertaken through 2021 by IRF India Chapter. I am pleased that they have planned to cover all aspects of road safety as outlined in the United Nations Decade of Action for Road Safety 2011-2020 to be achieved by 2030. I wish with the cooperation of all stakeholders, we shall achieve the goal of reduction of 50% of road accident deaths by 2025 in the country. My Ministry has taken several measures to contain road accidents by strengthening the 4Es of road safety, which are very important as far as road safety is concerned.*

*Engineering i.e. safe road, safe vehicle; Education, where it is very important for schools to train our small children who can understand the importance of road safety; and Enforcement, which is the response from the Government and it is equally important because of the Road Safety Bill, which has been passed by the Parliament, making it possible to implement some strict laws by which we can prevent road accidents; Emergency Care services are equally important, but if we don't have accidents, if we can reduce the percentage, naturally we would not need to develop more emergency care services. However,*

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*presently because of road accidents, we do need emergency care services by which we can save lives by and large.*

*In the country, Tamil Nadu state government is carrying out effective and quality work in the road safety field. They have reduced road accidents by 38% and deaths by 54%. This is one of the successful examples of an Indian state and I am giving this example to all State governments. If they can work in the direction, it is 100% feasible and possible that we can reduce road deaths and accidents. The Tamil Nadu model is very important, where the Tamil Nadu government has taken help from the World Bank and in cooperation with the Work Bank, they achieved this goal. If Tamil Nadu is in position to achieve this goal, why not the other States, this is really a million dollar question for me and this is the time for all of us now to take it very seriously and to be active about all road accident issues. I urge all States and concerned stakeholders from the core of my heart to study and follow the success model of Tamil Nadu in reducing road accidents.*

*Road Accident Data Collection & Recording system should be qualitative, comprehensive and uniform across the country. Digital technologies, Drones, App based platforms should be developed.*

*As per the accident statistics, more than 60% of the accidents occur at road junctions, which clearly indicates that there are deficiencies in the design and construction, which itself creates accident blackspots. Can we find alternate solutions for junctions by designing them into roundabouts, rotaries, grade separators, flyovers or channelized diversions? We have finalised the guidelines and standard operating procedures to identify and correct accident blackspots in the country. My Ministry is working on more than 5,000 blackspots identified on highway networks.*

*Road Safety Audit during different stages of development appears to be the most suitable way to correct all deficiencies causing accidents. More than 40,000 km length of road is under auditing. I urge professionals and authorities that prevention is always better than cure. I will request all the dignitaries and particularly to Mr. Kapila that is it possible for us to take the help of Engineering colleges, IITs and Polytechnic colleges for road audit. I am interested to start such a scheme by which these institutions can undertake audit of the road, following some given criteria so that they can give us an idea about which are the blackspots and also the problems. A third party audit by educational institutions for which the students can work can be a good beginning. I am 100% certain about this point that taking the cooperation of Engineering colleges for auditing at least 300-500 km of road would by their suggestions, help to improve things.*

*Many DPRs are in very bad shape. I again request Mr. Kapila to suggest defects in DPR, which are already prepared by the private agencies and if there is any methodology by which people like you can research and study, using the different types of new electronic systems, which we already have. On the basis of that, is there any system, where we can collaborate with people like you, that whenever the DPR is submitted to NHAI, we will give it to you for 15-20 days, where you can study all DPR and identify and suggest the problems and make recommendations to our people. My feeling is that the attitude/approach of the people working outside the system, is different from that of the people within the system.*

*So, if there any institutions like engineering college, IITs, and if before submitting their report, because it is difficult for me. Is there any possibility to get some approval from your side. We can bear some cost for that. Third Party Auditing of DPR and auditing of the road will give us an idea as to where the faults lie and I feel this is very important. The DPR preparing persons are the basic culprits responsible for road accidents.*

*We are now introducing Project Management Consultancy by which we are planning to make DPRs where there will be involvement of expert people and not only for road accidents, but I am also seriously concerned and sensitivity about cutting of trees also. I am constantly pursuing that plantation is very important and if we need to cut trees, we should also have transplantation. We have now decided to make the e-tag for every tree and we are starting to make drone video shooting by which we can understand what are the exact number of plantation and what needs to be done. Here also, if there are expert people in your institution who are ready to cooperate us, we can take their help. It is important for us to have all types of suggestions by which we can save the life of people.*

*The government has proposed a State support program to incentivise the states with Rs. 14,000 crores funds, of which Rs. 7,000 crores could be from Asian Development Bank and World Bank and balance of Rs. 7,000 crores from the Central Government for road safety improvement work in India. In India, 78% of road accident deaths are of two-wheelers riders, bicyclists and pedestrians. The objective of protecting this vulnerable road user group is the foremost priority of the government.*

*Issuing revised guidelines for automatic headlights on the two-wheelers, use of BIS standards helmet, ABS in two-wheelers are a few other measures. Further, we need to think of dedicated facilities like footpaths, proper road crossing arrangement, bicycle tracks, lane and parking for two-wheelers. It will help to save the life of this category of road user by and large.*

*70% of accident deaths in India are due to over-speeding of vehicles. Speed Management study is very important right from*



expressways to city roads. Adequate signages, proper road markings, speed control measures, fixation of speed limit norms, crash barriers etc. should be ensured on roads. Adoption of best advanced technologies and automated tools is the need of the time for effectively monitoring, managing and enforcing road traffic movement. Fitness check of all vehicles has been mandated to be done through automatic vehicle inspection and certification centers. Motor Vehicles Act has strengthened vehicle regulation by introduction of the provision for recall of vehicles and vehicle components in case of any defects. Our vehicles are quite advanced in their safety requirements, but earlier sold vehicles need to be retrofitted appreciatively, which is a big concern.

The government has recently announced a Scrapping Policy to deal with old unfit vehicles and their safety concerns. It is expected that more than 1 crore such vehicles would be removed. However, we have a plan to change the vehicles on alternate fuel and energy sources like Ethanol, Methanol, CNG, LNG and electricity and even we are trying for hydrogen fuel cell. We are also trying to develop alternatives for Lithium ion battery by which the pollution is also big concern. The road accidents are undoubtedly a big concern but equally so is pollution. It is very important therefore to reduce the dependence on imported conventional fossil fuels.

It has been seen that road safety is mostly a behavioural issue. It requires cooperative federalism to boost coordination, right from block to taluka level, and this can be achieved to an extent by enforcement of the traffic rules through imposing higher penalties on traffic rule violators. There has to be a systematic education and campaign starting from school curriculum by which children can be educated and trained by inculcating in their mind safer behavior on roads. Our large youth population needs to be sensitised and educated by creating in them awareness and sense of responsibility and driving manners.

Post crash scientific study of damaged vehicles and road environment at locations is very important. Such practice is mandatory in many countries, we should also think of it.

One of the most important requirements of road safety activities is Emergency Care through an appropriate network of rescue system. This has improved over the last one decade through deployment of advanced ambulances and set up of trauma care centers at different levels.

The Good Samaritan guidelines have been already issued to protect persons helping accident victims on spot from any form of harassment. I believe that this Webinar series will be beneficial for all the officers of various agencies to tackle their road safety problems successfully.

The government is positively looking for your suggestions, recommendations and concrete roadmap for adopting a self system approach to improve the road safety scenario in the decade 2021-2030.

Although as far as the agreement is concerned, we have committed for reducing road accidents and deaths by 50% upto 2030, I am trying my level best that we will achieve this goal before 2025, with the cooperation of all the stakeholders and people like you, who are constantly working for this cause. Because social consciousness, social responsibility and social sensitiveness is very important and I know Mr. Kapila from the last many years, as well as a lot of people in India are taking all this work as a mission for this. It is exactly a good indication for the society. But we need to have more people like this, more institutions like these, more talented people like this. Unfortunately, I am not very much satisfied about the programs/functions, which are executed by my Ministry where we need lot of new changes and development.

Within 8 days, I am going to appoint a Chairman of the Road Safety Council and he is a very good, dynamic and sensitive person. I am confident that under his leadership, we will give him all the rights, and he will plan for the next year for which we need cooperation from the masses. Presently, this is the activity of some classes. We need to penetrate into the masses for which we need cooperation from the Universities, Colleges, Schools and all type of educational departments, NGOs, social organisations and even Political organisations. We can take help from anybody because this is a noble cause, where we need cooperation from everybody. Even, in NHAI, every toll naka, we are taking a lot of initiative for checking of eyes etc. and other things.

So, I feel that our Road Safety Council will immediately plan for the Road Safety Month next year and we will involve many celebrities, good players, all different stakeholders from the society and I expect from all of you that you organize the programs and we need to increase the number of programs as far as the cause is concerned to create awareness in the mind of the people and make it a mass movement, a social movement.

As a Minister, I don't have any hesitation to accept that presently whatever we are doing it's a good thing but reports are not really comfortable, it is not adequate. This is the time for all us to save lives and we need to work more for that. For this, we

need the cooperation, coordination and communication between all stakeholders. I believe that the role of government is very important but it is limited. We need to have cooperation from the NGOs, social organisations, institutions and Mr. Kapila Ji I will request you in that line, if you can make an organisation/institution, where you have cooperation, coordination and 100% communication between the stakeholders, because on government level there are lot of things which we need to improve. I don't wish to criticize the system but I am presently not very much satisfied about whatever we are doing. So, we shall take the cooperation of the social organisations, the people who are working on a mission and 100% we will achieve our goal and save the lives of people in road accidents.

Once again, I am sending all my best wishes for all your work, recognize it, respect it and giving special thanks to you from the society and from the people of the country.

Thank you very much. Namaskar.

## Keynote Address by Mr. K.K. Kapila, President (Emeritus), IRF Geneva

Respected Gadkari ji, Hon'ble Minister for Road Transport and Highways and MSME, an inspirational leader and an extremely passionate person about Road Safety, other respected dignitaries including Ms. Luciana Iorio, Chair UNECE Global Forum for Road Traffic Safety and Mr. Bill Halkias, President, IRF Geneva, Dr. Gangopadhyay, President, IRF India, Mr. T. K. Amla, Secretary, IRF India, delegates to this Webinar, friends from the media, Ladies and Gentlemen, Namaskar.



I extend a very warm welcome and thank you all for joining us today.

Road Safety, though extremely important has still not been able to attract enough attention in India despite the fact that there have been higher fatalities year on year on account of road accidents than due to COVID 19 pandemic in 2020. In India, more than 150,000 people die every year while 500,000 get injured. A significant point to be noted here is that while over 70% fatalities due to road accidents, are in the most productive age group of 18 to 45 years, over 70% fatalities due to COVID, were in the age group of over 65 years.

Globally, road accidents account for 1.3 million deaths and 50 million injuries, with many living their lives with permanent disabilities. Of this, India's contribution to the fatalities is at 11%. In 2010, the world leaders from 100 countries gathered together and resolved to reduce road fatalities and accidents by 50% by the end of 2020. Though we did not achieve the target, there is now an increased sensitivity and awareness towards road safety. Having failed to achieve the target, a new target has been set up to achieve reduction in road accidents by 50% by 2030.

To achieve it, an action plan was contemplated to be prepared in 2020 but because of COVID 19, this has got delayed and we have now embarked upon it. In this effort we have the whole hearted support of a number of International and National Organisations including FIA, Road Safety Organisation of Prince Michael Duke of Kent, iRAP, IRF-Geneva, UNECE and MoRTH amongst others.

Our attempt through this webinar series is to sensitise every wing along the lines of 5Es to collectively finalise, resolve and move to achieve this target.

1. Let us first look at Safety on Roads. In this effort, we have been continually working and in 2010 the MoRTH as a sequel to an IRF Seminar issued a circular to build Forging Roads. Thereafter the NHAI issued 2 Circulars on the subject in the years 2010 and 2012 respectively.

In spite of explicit instructions, these have not been adhered to, primarily on the plea of cost increase as well as a casual attitude of the people involved. This is indeed unfortunate.

Let us now resolve to follow these instructions, both in letter and spirit.

2. Moving to Vehicular Safety, the GoI has initiated provisioning of safety measures in the Vehicles aligning them with UNECE standards, in both two wheelers and four wheelers. We compliment the Government of India for mandating crash test

INTERNATIONAL ROAD FEDERATION  
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### Engineering of Roads

- Circular of MoRTH Letter no. RW/NH-35072/04/2004-S&R(R) dated 27<sup>th</sup> April, 2010 – Engineering Measures to Road Safety
- Circular of NHAI vide no. NHAI/2008/Road Safety/IRF/588 dated 12<sup>th</sup> July, 2010 – Ensuring Road Safety – Engineering Measures as per directions of MoRTH – reg.
- Circular of NHAI vide no. 11041/218/2007/Admn dated 13<sup>th</sup> September, 2012 – Road Safety issues on the ongoing projects.

09.02.2021 **Better roads, better world.** 2



standards, identical with Europe. Similarly the provisioning of ABS in two wheelers is again a very welcome gesture.

Another positive step is with regard to introduction of Bus Codes. However, nobody follow these codes and RTOs in States do not have the expertise to verify the compliances. The Registration currently takes place based on self-certification by Fabricators. There is an urgent need to plug this loophole which is also a cause of corruption in the system. Till a proper system is evolved, OEM dealers may be empowered along with the I & C Centres proposed to be set up by including this activity under Rule 62 meant for issuance of Annual Fitness of vehicles.

The Government of India's move to encourage use of CNG is welcomed. However, if we are retrofitting CNG kits in the market, it is important that these vehicles meet the same crash test safety standards as mandated for all cars. Secondly, many of these kits are imported from China and do not meet basic safety standards. Under Atma Nirbhar Bharat, we need to develop and manufacture these in India, so that they meet all test standards, stop their import, and generate local employment.

### 3. Education

IRF India in association with IRTE has prepared books by removing the existing chapters of NCERT books from Class VI to Class X and introducing new chapters aligned with Road Safety so that the children who are educated with these books have deep rooted sensitivity engrained in their minds about road safety. These are freely available on our website.

For Mass Awareness, we need to screen, short road safety films in Cinemas before a commercial film is screened as well as on Doordarshan channels, **similar to the anti- tobacco drive**. We may encourage those who produce these films by making appropriate Tax Relief for investment on making these films. IRF has produced a number of short films which are freely available on our website.



### 4. Enforcement

I would like to salute you Sir for having spearheaded the Amendment of MV Act 1988. The amended MV Act 2019 implemented in September 2019 will bring a remarkable change in the road safety scenario in the country when it is adopted in entirety by the States and Union Territories across the country. Removing the human interface from Enforcement and extensive use of ITS technologies to capture violations is the way forward.



### 5. Emergency Care

IRF-IC has been relentlessly working with AIIMS Trauma Centre, Ministry of Road Transport and Highways, Ministry of Health and WHO to promote First Aid Trauma Care. We have had a number of First Aid Training Programmes and we have worked to have One unified First Aid Trauma Care Programme which was duly released by the Hon'ble Health Minister during the Road Safety Week in 2019.

Our Vision is that Bystander Training Programme should be undertaken in a time bound manner along all National and State Highways to begin with.

I would like to invite your kind attention to the Good Samaritan Law which gives comfort to the bystanders who come forward to help the accident victim. The Law provides that police will not question them nor the hospital will refuse to attend the accident victim.

I am pleased to share the latest intervention in trauma care area by the DRDO Scientists who have created a Motorbike

Stop Accidents Before They Stop You

Ambulance called "Rakshita". I firmly believe that we must promote manufacture of these Motorbike Ambulances in a populated country like ours with massive road network and disproportionately large accidents to save human lives. This effort should be launched in the same manner as we have taken up the vaccine drive for COVID 19.

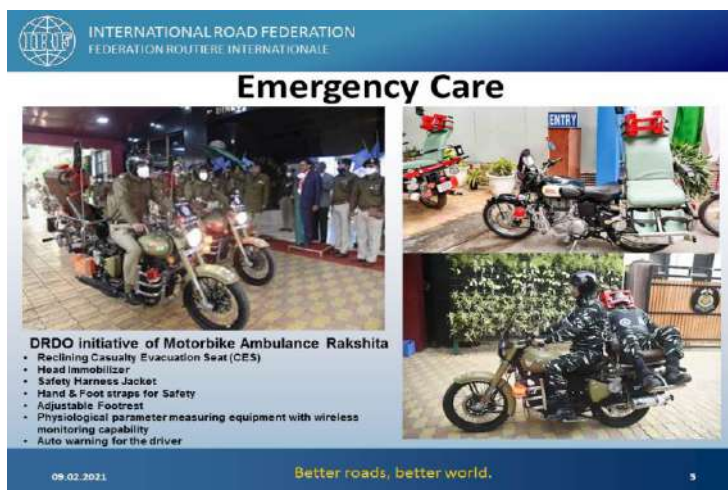
IRF has decided to honour those responsible for the development of this Motorbike Ambulance in the near future.

I humbly solicit the Hon'ble Minister's support to bless us with his presence at IRF Webinars on commencement of each new subject and assist us in our effort to invite the Hon'ble Ministers of Rural Development, Industry, HRD, Health and Home to launch respective Webinars covering Rural Roads, Vehicular Safety, Education, Emergency Care and Enforcement, along with him in these webinars. We propose to prepare an action plan and get it finalized in consultation with various Ministries during the ongoing Webinar Series.

Besides it we propose to take up various demonstration studies and their implementation to base our recommendations on evidence based programme of Road Safety Interventions.

We propose to have the concluding programme of this year-long series during the Road Safety Month in January 2022 to release the National Road Safety Action Plan. On this occasion, we must take a pledge that we will all relentlessly work to make it a success. Sir, I am extremely confident that your vision and support in this initiative will go a long way in achieving reduction in road accidents and fatalities. This has to be treated as a "Yagnya" in which everyone's "Ahuti" is required. Saving a life is the biggest prayer one can offer at the feet of the All Mighty by whatever name you call him.... RAM, ALLAH, JESUS, BUDDHA or GURU NANAK Jee.

Let's all pledge that we will relentlessly keep giving these "Ahutis". Jai Hind.



## b. 2<sup>nd</sup> Webinar on "Road Safety Engineering for Improved Safety" – 12<sup>th</sup> March 2021

IRF-IC organised the 2<sup>nd</sup> Webinar titled "Road Safety Engineering for Improved Safety" on 12<sup>th</sup> March 2021 from 16:30 – 19:00 Hrs.

The Chief Guest at the Webinar was Mr. I.K. Pandey, Director General (Road Development) and Special Secretary, Ministry of Road Transport & Highways.

Welcoming and introducing the Chief Guest at the Webinar, Mr. K.K. Kapila, President (Emeritus), IRF Geneva made his introductory remarks. Speaking of the importance of the Webinars and their contribution to the formulation of an implementable Action Plan, he welcomed the Chief Guest, Speakers and participants. He also introduced Mr. I.K. Pandey, DG (RD) & SS, MoRT&H

Prof. P.K. Sikdar was the Moderator of the webinar, which featured three eminent Speakers as follows:-

1. Prof. Satish Chandra, Director, CSIR-CRRI (Topic : Understanding Traffic Flow for Managing Road Safety)
2. Prof. G.J. Joshi, Professor, Transportation Engineering & Planning, Civil Engineering Department, SVNIT Surat (Topic : Intersection Design & Operation for Road Safety)
3. Dr. Ammu Gopalakrishnan, Transportation Safety Division, 3M India Ltd. (Topic : Design & Provision of Signs and Markings for Road Safety)





## Address by the Chief Guest, Mr. I.K. Pandey, DG (RD) & SS, MoRT&H

Good afternoon. President, Indian Chapter of IRF, distinguished participants, panellists, a very good afternoon to you all and I welcome each of you to this Webinar on Safety, indeed an extremely important subject matter for discussion as well as action.

Looking at the safety scenario on roads, this particular subject calls for a very important role to be played by all stakeholders. In the Ministry, we have taken up road safety as a program, we have identified black spots, we have prepared a web portal specifically to monitor all those black spots and also delegated powers to all the regional officers, to identify and, sanction at their own end, costs estimated for rectification of black spots. But I would say that this will be merely a tip of the iceberg. The mammoth number of accidents and road safety issues also require a multipronged strategy for dealing with them. Although I am responsible for the road engineering related aspects, we cannot ignore the fact that a major role is also being played by the other Es i.e. Enforcement and Education. If we look at the data of accidents and analyse it, it brings out the fact that about 65% of accidents are taking place due to the high speed of traffic. I would go beyond this and also say high speed is not the only responsible factor, there are other reasons as well. These include the education of the drivers to manoeuvre the vehicle in a proper manner, appropriate speed limits taking into consideration the accident prone sites, urban areas where he is lacking in the proper behaviour as an informed driver.



Coming to the total scope of work involved in dealing with this problem, we have a large network of roads, which is next only to the USA, but we our accident statistics accounts for almost 11% of total world road accidents giving us the dubious distinction of being the first ranker in global accidents. We need to have a proper strategy for road engineering.

We are concerned about this, and have taken initiatives to issue guidelines and instructions to all the stakeholders that right from the inception and preparation of DPR, and during the design and construction of roads, the safety aspect must be taken care of. Moreover, as a specific directive we have issued orders for the Safety Audit to be delinked from the DPR preparation and supervision. Although the supervision authority i.e. Authority Engineer or the Independent Engineer has a component of Safety Auditor, we have stressed that there is a need to have an independent safety auditor, delinked from that particular organisation, so as to give informed solutions, which everybody has to follow.

Another decision taken is to have a concerted effort to redress all the black spots by 2022 taking immediate rectification measures by this September itself. As of now, we have around 5,000 black spots and about 4,000 have been taken care of, but the others are yet to be taken up as these require grade separated junctions and geometrical improvements, which require land acquisition and construction time as well.

My advice to all the stakeholders is to give safety particular importance when planning, right at the inception stage and to take care while designing highways or road networks and also take care while constructing highways. There are at least 2% to 3% of accidents which are attributed to construction periods, because construction safety zones are not provided with proper safety precautions, signage and there are no informed guidelines to the traffic users. There are accidents, which have taken place because of poor design of temporary works for bridges and apart from the loss of lives and damage to property resulting from these lacunae, these results in very bad publicity for the government as well as criticism by the public. When we are designing such temporary works, special care has to be taken that they are safe and reliable.

At the same time, we have also made it mandatory in the Ministry that before issuing a Completion certificate, a proper NSP survey has to be undertaken, an independent audit has to be done and the road under consideration has to be certified to be safe by an independent auditor.

We have also taken up the initiative to carry out NSP surveys and safety audits of all the corridors and to carry out a rating of the highways based on their performance and safety. These measures will bring out some tangible results in ensuring road safety and if awareness campaigns are taken up by all the stakeholders. and the Enforcement authorities, the target defined by Hon'ble Minister of Road Transport & Highways to reduce road fatalities by 50% by 2025 can be certainly achieved. This will not be a very high target.

On this note, I once again congratulate all the Panellists and Organisers for holding such Webinars on many important

Know Rule, No Pain.... No Rule, Know Pain

issues related to planning, design of intersections, black spots, taking care of artificial intelligence features for highways to ensure better safety, and to further discuss, deliberate and share the recommendations with the Ministry so that these can be incorporated, wherever required.

Thank you.

## B. Chairman, IRF-IC voices some thoughts on “The use of CSR funding to support road safety initiatives would go a long way towards enhancing safety on roads”

Dr. S. Gangopadhyay, Chairman, IRF-IC was recently interviewed by the **Construction Times** magazine on “The use of CSR funding to support road safety initiatives would go a long way towards enhancing safety on roads”. We bring you his in-depth interview, which appeared in **Construction Times**, February 2021 issue.

### COVER STORY - IRF I

The use of CSR funding to support road safety initiatives would go a long way towards enhancing safety on roads.

**dr. S. gAngopAdHyAy**  
Chairman, IRF-IC



Established in 2009, the IRF India Chapter fosters innovation and progress by providing access to and sharing cutting-edge knowledge and expertise. IRF IC's mission is to promote the development of safe roads and safe road networks that enable access and sustainable mobility for all. **Dr. Gangopadhyay**, Chairman, IRF IC speaks about the role played by the firm in the development of safe road networks. Excerpts from the interview...

IRF IC has been working towards various tax exemptions for investment in road safety.

#### As the new Chairman of IRF India Chapter could you brief us on your immediate thrust areas especially enhancing road safety?

IRF IC's mission is to promote the development of safe roads and safe road networks that enable access and sustainable mobility for all. Its activities are organised around three strategic pillars, namely: Disseminating knowledge, Providing a networking platform and Influencing policy. Towards this end, IRF IC has been undertaking various initiatives so far focusing largely on the safety aspects of roads for all stakeholders.

While continuing to enhance its activities in these areas, we are looking forward to:-

- Awareness generation and promotion of capacity amongst road agencies and corporates with special focus on safety aspect.
- Projects and association with international agencies to bring innovative technologies in road safety.
- Along with our activities on other 4E's of road safety, we hope to focus in a major way on promoting capacity in Emergency Care through Enhanced First Aid (eFD), training of bystanders, which is anticipated to have a major effect on bringing down road accident related deaths.
- Identification studies of blackspots and rectification measures: Training of road safety professionals in road safety audits for retro correction of blackspots and aspects not conforming to desired road safety parameters.
- Generating and encouraging research in the context of mix mode traffic prevalent in India for identification of best solutions.

#### What do you think the major challenges in this space since a variety of stakeholders are involved to achieve the desired goals and many times the interface is weak?

There are many agencies and stakeholders all trying to achieve the desired goals and coordination between these agencies is not only desirable but necessary. No single agency can do enough, but it is important that the efforts are distributed without overlapping and repetition. It is also important that efforts are not too thinly spread to achieve desired impact. The Ministry of Road Transport and Highways is the nodal agency

IRF-IC Conference on Trauma Care – A National Mission.





for road safety matters in the country. The need is to finalise a national programme for improving road safety scenario in the country. This would need coordination between all wings of the government, each one of which have to work in tandem to get the desired results. As regards the private participation, there should be synergy amongst the various players as each one of them can contribute immensely to the cause. There should be no apprehension in anyone's mind that they need to be principal actors in this area. It is a common cause and everyone must work shoulder to shoulder to achieve the objective.

#### **How do you assess the initiatives taken by the government so far and what policy / regulatory reforms do you expect?**

An excellent initiative had emerged in the form of 'Good Samaritan Guidelines' which has been enacted as a Law in the State of Karnataka. Other states need to take similar initiative post haste. This is necessary because, road safety is a concurrent subject. This will enable people to assist the accident victim without fear of harassment by the Police and other enforcement agencies, besides getting the accident victims immediate medical attention as soon as a patient is taken there without waiting for any payments, lodging of police complaints, etc.

#### **What is the role of disruptive technologies and digital platforms in enhancing road safety?**

Such technologies will ultimately connect people, processes and data in wide scale networks. The economic impact of the new technologies will occur through various mechanism affecting the demand and supply side of the economy through

- Reducing the need for travel through substitution
- Improving the efficiency of travel by creating new modes, improved route planning, etc
- Improving the efficiency of infrastructure construction, operation and management, etc.

Each of these changes will invariably also affect the design and construction of roads and create new demands on road safety. This is amply demonstrated by the conduct of business world over during Covid times. The technology has been a great enabler as far as communication is concerned. Besides the tech savvy sectors, even traditional business have beautifully adapted to the demand of the times.

#### **Could you throw some light on the major initiatives IRF-IC has already brought in, especially bringing in Cooperative, Connected & Automated Mobility (CCA)?**

IRF had organized four Roundtables on Intelligent Transport Systems (ITS). The

Roundtables had the participation of government institutions at the highest level and prominent private stakeholders. The main objective of these high level round tables was to develop a comprehensive action plan for ensuring speedy deployment and optimisation of ITS in India to address the problems of road safety, congestion, pollution and mobility in India in the most cost efficient and sustainable manner.

As a follow up of this effort, the IRF joined hands with the NITI Aayog to formulate ITS Policy for India. IRF IC chaired the Technical sub-Committee for this purpose set up by NITI Aayog. The report of the Committee has been submitted.

#### **What are the steps initiated to bring in private players major role in enhancing road safety?**

The role of private players in road safety is exceedingly important to complement and fast track government's efforts to improve the road safety scenario. For instance, IRF IC has been instrumental in MoRTH issuing Circulars for Engineering Measures required to construct and promote forgiving roads instead of just constructing roads.


IRF IC has been working towards various tax exemptions for investment in road safety and has also got clarified the more recent provisions of CSR to include road safety.

It has also informed its members that road safety activities are 100% income tax exempt under Section 35 of the Income Tax Act 1961. Corporates can therefore invest in road safety under these provisions as well as section 80G.

All profit earning corporates have to make mandatory spends of 2% on CSR funding. The use of CSR funding to support road safety initiatives would go a long way towards enhancing safety on roads.

#### **Please brief us on IFR-IC's road map to facilitate faster and safer and sustainable road construction processes and methodologies?**

As you know, I have recently taken over IRF IC Chairmanship, but I have plans for facilitating various safer and faster processes through deliberations, consultation with and engaging our members in promoting technology driven design for safety which is environmentally friendly as also sustainable. Among other things, IRF IC has adapted to Indian conditions IRF - CHANGER software, a greenhouse gas calculator for reducing the GHG emissions from the raw materials used in road construction projects, which it hopes to widely promote.

We would also promote the use of new construction materials and methodologies. 

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IRF IC has adapted to Indian conditions IRF - CHANGER software, a greenhouse gas calculator for reducing the GhG emissions from the raw materials used in road construction projects.

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## II. Media Reports

IRF-IC Webinars have been widely covered in the print and electronic media. Some of these reports are given below. The same can be accessed by copying and pasting the link [http://www.indiairf.com/media\\_coverage\\_irf\\_india.html](http://www.indiairf.com/media_coverage_irf_india.html) on your browser

The Hindu – 09 February 2021 – *Will ensure road injuries, fatalities are reduced ahead of WHO deadline: Gadkari*

Devdiscourse – 09 February 2021 – *Road accident scenario 'more serious' in India than COVID-19 with 415 deaths daily: Gadkari*

Outlook – 09 February 2021 - *Road accident scenario “more serious” in India than COVID-19 with 415 deaths daily: Gadkari*

Latest LY – 09 February 2021 - *Road accident scenario 'more serious' in India than COVID-19 with 415 deaths daily: Gadkari*

PIB – 09 February 2021 – *Gadkari says deaths due to road accidents are becoming an alarming situation; calls for efforts to reduce deaths due to road accidents by 50% by 2025*

IndiaTV News – 09 February 2021 - *Road accident scenario 'more serious' in India than COVID-19 with 415 deaths daily: Nitin Gadkari*

Mint – 09 February 2021 – *India stands committed to reducing road accidents by 50% by 2025: Gadkari*

Financial Express – 09 February 2021 - *Road accident scenario 'more serious' in India than COVID-19 with 415 deaths daily: Nitin Gadkari*

The Indian Express – 09 February 2021 - *Road accident situation in country 'much serious' than pandemic, says Nitin Gadkari*

ANI – 09 February 2021 – *Gadkari calls for 'all-round' efforts to reduce road accidents by 2025*

Lokmat – 09 February 2021 - *Gadkari calls for 'all-round' efforts to reduce road accidents by 2025*

Deccan Herald – 09 February 2021 - *Road accident scenario 'more serious' in India than COVID-19 with 415 deaths daily: Gadkari*

Times of India – 09 February 2021 – *Govt works to end China dependency on Li-ion batteries*

Big News Network – 10 February 2021 – *Gadkari calls for efforts to reduce road accidents*

One fast drive can make it the last drive of your life.



#### Future of Engineering

by **Mr. K. K. Kapila**, *CMD, ICT Pvt. Ltd., India & President (Emeritus), IRF*

**Dr. Mahesh Kumar**, *President, ICT Pvt. Ltd., India*

##### 1. Introduction

Future of Engineering is a like a technology dream which one sees today and would come true in a few decades. Thanks to the advances in research and development of engineering field and the dedicated infrastructure that have built over the past few decades, this is a technology age. Every year the number of developments are marking milestones in the engineering field.

It is also interesting that the Services/ Products which have higher value today are somewhere the most advance ones; they would have the latest technology inbuilt in them.

Similarly, it is seen that at this age of human race, a lot of global issues are being faced related to environment and human well-being, and one should be just as thrilled to see how engineering in future is going to change the world for the better with Artificial Intelligence, Robotics and of course the close study of space.



##### 2. Growth of Engineering

The day to day routine has certainly changed over the past few decades with the advances in the field of Engineering, which has evolved over time with the continuous efforts of engineers worldwide.

Engineering development has been the most significant player in development of society since the ancient era. These advances have been a boon to our lives and it continues to carve the world to be a better place. If one looks at the broad scope, there are hardly any strings of life, which have not undergone massive changes with the advancements in engineering.

World economies are now valued over the technology and technical know how they possess. This has created a vision for most of the Engineering driven institutions for advancements in growth and research.

##### 3. Varied Fields of Engineering

Engineering has now expanded its horizon into vast number of disciplines. For instance Biotechnology, Nanotechnology, Artificial Intelligence and Robotics are some of them. Engineers are innovating new and modifying old technologies both at a fast pace due to the increased competition between the developed and semi-developed Economies. However, the nature of these inventions and the impact would not be as of the past, it would be much more impactful and less time consuming.

Crypto currency, Space missions, automated driverless vehicles, unmanned aerial vehicles, Medical science/robotics and artificial intelligence, are the game changer for the industry and one would be seeing the future of engineering revolving around these.

In the late 90s, for instance one saw the big, heavy mobile phones; these were technology marvels, changing the ways of communication. In the following decades, the camera mobiles became the new standard. These advancements came at a pace that the use of mobile phone from merely providing call services has moved dynamically to host additional other uses like photography, social media, gaming and payment tool. The display of phones, televisions and laptops have also seen this advancement, now one must look forward to holographic displays in the future moving away from the three dimensional screens.

##### 4. Heavy Industries and Engineering

###### (a) Automobiles

When one looks at heavy industries like automobile, the future is beyond imagination. Automobile companies are

now facing intense competition and new feature to enhance comfort and security are being introduced to enhance passenger satisfaction. These may vary from Safety of the car, to the entertainment systems, better air-conditioning, lesser fuel consumption, etc. Besides to be an enabler to reduce global warming, companies are becoming more concerned with the emissions from vehicles.

The future of Automobile is very interesting as it holds surprises and engineering marvels. Vehicle crash detection and prevention system, for controlled emissions, Electrical powered vehicles have been introduced, and heavy research and competition would lead to an era where each household would have an electric car or alternative fuel operated car and the conventional fuel operated cars would become obsolete.

#### **(b) Driver less Cars**

Who imagined the adjacent car would have no driver? These would slowly become common. Similarly in the future there would be driver less trucks, making movement of logistics simpler and efficient. This would not only reduce the number of road accidents but also increases reliability on delivery timings. It would streamline the whole logistics industry. Although if one looks at the other side, driver less truck means unemployment for drivers? But it is crucial to understand that these goods carrying vehicles would always have a human to ensure the safety of material from theft or loss. Just the fact that driverless trucks and equipment would work tirelessly without breaks and optimise the traffic conditions, would create a revolution in the industry.

#### **(c) Railways**

Railways are one of the most used means of transport where a new future is foreseen. Certain companies are working on making travel at 1,223 kmph (760 mph) possible through usage of vacuum tube and other hi-tech infrastructure. Future is clearly going to be very exciting as one travel's at such speed.

### **5. Disaster Management**

#### **(a) Technology Intervention in Disaster Management**

Moving over to how Engineering helps disaster management and disaster prevention. In this field, the future has endless possibilities with the upcoming drone era, which helps one reach places where human access gets restricted. UAV's (Unmanned Aerial Vehicles) can access areas by flying and driving. Further adding technology like camera, Lasers, Arms & ammunition has pushed the industry further to new dimensions. UAV's can now deliver material for relief, do 3D mapping of areas and help in immediate disaster reports and providing relief material.

#### **(b) Innovative Concepts of Internet**

These technologies run with internet access. Internet has changed the world, but still there are places where internet is not available due to multiple reasons. To cater to these areas, companies like Google are planning to deploy helium balloons to beam and provide internet to inaccessible areas. There are also concepts of deploying micro satellites into earth's orbit which would act like modem and deliver data when the satellite crosses an area.

It is essential to point out that technology can access areas where humans cannot reach easily. In event where rescue work is required, Technology can be way beneficial than sending another human for rescue, at risk of their lives.

#### **(c) Role of Robots and Unmanned Aerial Vehicle**

Robotics and unmanned aerial vehicles have brought in rigorous improvement in rescue efforts. Assessment of damage has become easier and the future of the same has limitless possibilities from providing medicines to taking medical samples and analysing the same instantly. This would change the health care industry as well. This would also help eradicate moving a patient in critical conditions and provides cheaper mobility and efficient response.

Similarly, in case of accidents, analysing location of survivor and then taking requisite measures, besides informing additional team, etc. could be easily done with this engineering tool. The technology exponentially increases the percentage of success in rescue missions.

#### **(d) Role in Environment**

Even to minimise pollution, robots called "Taxi-Bots" have been introduced at airports which tow aircraft to save

fuel and cut pollution. Such systems and technologies are being developed which would aid in reduction of fuel consumption and maintain low emissions from human activities.

## 6. Way Forward

It is crucial to point out that future of engineering is bright and unpredictable. There are millions of engineers, researches, technologists working across the globe to change the world into a better place. These are continual developments with endless potential.

Moreover, industrialisation has changed from being labour dependant to information and data dependent. The Research and Development which is happening is to make sure new products and services laden with technology making lives easier are provided. The measure of wealth is moving away from the gold reserve to technology and data reserve. The prestige of a nation would be based on exhibiting what it is developing as new scientific knowledge, new technology, and new innovative products through R&D activities.

All the growing companies are investing in Research and Development, everyone now encourages inventions and thinking out of the box. Now the competition has come between brains and not the possession of natural resources. It is required to attract more efficient brain and then provide them adequate infrastructure to get enhanced results from Research and Development, which would take the future of engineering beyond imagination.

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# WEBINAR SERIES

## ROAD SAFETY CHALLENGES IN INDIA AND PREPARATION OF AN ACTION PLAN

Tuesday, 4<sup>th</sup> May 2021 at 16:30 – 18:30 hrs (IST)

### 4<sup>th</sup> Webinar: Road Safety Management & Action Plan

**Chief Guest:** Ms. Karla Gonzalez Carvajal, Practice Manager, World Bank (TBC)

**Moderator:** Ms. Susanna Zammataro, DG, IRF-Geneva

- Safe System Approach and Global Performance Targets
- Development of Capacity for Road Safety Management
- Traffic Calming Measures for Enhancing Safety
- Systematic Approach for Maximising Benefits

Safety is not automatic, think about it



## Upcoming Events



Webinar – IRF World Road Statistics & Data Warehouse  
March 23 @ 2:00 pm – 3:00 pm CET



Making Transport Resilient to Pandemics  
March 25 @ 2:00 pm – 3:00 pm CET



Africa's response to COVID-19 impacts on Transport & Mobility  
March 29 @ 2:00 pm – 2:45 pm CEST



2<sup>nd</sup> Smart Transport Infrastructures Summit (STIS 2021)  
March 30 – March 31

IRF-IC Webinar – Safer Roads for Safety of All Road Users  
April 6 @ 16:30 Hrs. – 18:30 Hrs.



CRISPS Webinar – Fibre Mastic Asphalt Technology – A Novel Material for More Resilient Roads  
April 15 @ 9:00 am – 10:00 am CEST

2<sup>nd</sup> Smart Transport Infrastructures Summit (STIS 2021)  
April 28 – April 30



IRF-IC Webinar – Road Safety Management & Action Plan  
May 4, 2021

6<sup>th</sup> UN Road Safety Week  
May 17 – May 23



IRF session on “Digitalisation of Road Infrastructure” at the ITF 2021 Summit May 26 – May 28  
*Leipzig, Germany*



MOVIN'ON – Michelin  
June 1 – June 4



World Transport Convention 2021 (WTC 2021)  
June 15 – June 19

## Suggestions of Members

IRF-IC invites suggestions and ideas of members for improvement in the Newsletter and its activities.

*IRF – IC Newsletter has a wide circulation not only in India but also globally. We seek to project & showcase the activities of all our honorable Members worldwide. Your contributions in the form of brief articles and reports of your activities, events, awards, and other accomplishments are invited.*

## Membership

IRF - IC is a membership based organization, representing corporate, institutional players and stakeholders in the road infrastructure sector in the country. Road safety has been at the core of IRF - IC's activities, which also promotes a "green road" approach.

IRF - IC invites all stakeholders in the road sector to join it as members and contribute to the efforts for better road infrastructure and safety.



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