



NEWSLETTER

From Editor's Desk



I am truly honoured to present my first editorial as the Editor of the IRF-IC's digital newsletter edition Oct. 2023 (Vol-1, Issue-1). As we delve into the pages of this newsletter, I want to highlight a pressing issue that affects lives on a global scale – road safety.

Alarming, fatalities from road traffic accidents have become the top ten global causes of death—an undeniable reality. Nevertheless, I staunchly assert that no one should lose their life on the road, as accidents are not inevitable but rather preventable. Road safety is not a disease; it is a challenge that requires our collective attention and action.

I am delighted to highlight that the IRF-IC is actively involved in a variety of awareness and capacity-building initiatives, specifically designed to tackle road safety issues nationwide. Notably, India having pledged its commitment to the UN Decade of Action Plan, is dedicated to advancing this crucial cause.

Since its establishment in 2011, IRF-IC has made substantial strides by undertaking diverse activities and awareness programs. These efforts aim to underscore the significance of road safety and actively contribute to fostering safer roads for everyone.

As we continue to work towards this noble cause I look forward to sharing inspiring stories, insights and initiatives in each edition of our quarterly newsletter. Your support and engagement are pivotal in our mission to make our roads safer and to ensure that every individual reaches their destination safely. Together, we can pave the way for a safer, more secure future.

Somenath Ghosh
IT Advisor, IRF-IC

News in Brief

- Recent Activities of IRF-IC [Page 3](#)
- IRF-IC Lecture Series [Page 7](#)
- IRF-IC in News Media [Page 9](#)
- Member News [Page 10](#)
- Articles [Page 11](#)
- Upcoming Events [Page 17](#)
- Membership [Page 18](#)

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 and sustainable roads.





K. K. Kapila

President (Emeritus), IRF Geneva &
Founder President, IRF India Chapter

I am delighted to communicate with you as the President (Emeritus) of IRF Geneva & Founder President of IRF India Chapter. I am pleased to share with you our continued endeavors in the field of road safety and sustainability.

We have always been at the forefront of advocating and implementing road safety measures. Our mission is to create safer road networks that not only enhance transportation efficiency but most importantly, protect the lives of all road users. Through various initiatives and partnerships, we are dedicated to making our roads safer and more secure for everyone.

Additionally, sustainability remains a fundamental aspect of our mission. As we progress into the future, it is imperative to build and maintain road infrastructure that minimizes environmental impact that supports long-term ecological balance. We are actively promoting sustainable practices to ensure that our transportation networks coexist harmoniously with the environment.

Policy advocacy forms a cornerstone of our work. We strive to influence and shape the policies that govern our road networks, advocating for comprehensive measures that prioritize safety, sustainability. By collaborating with policymakers and stakeholders, we can create an environment that fosters positive change. Our newsletter serves as a vital platform for sharing knowledge and best practices that inspire positive change within our field.

In a global perspective on road safety, the International Road Federation (IRF) extends its dedication beyond borders. We collaborate with international bodies like the UNECE and the World Bank to sensitize and enhance road safety standards worldwide. We are committed to contributing to global road safety efforts.

Notably, as we work towards the UN's decadal plan to reduce road traffic fatalities, we are committed to witness an improvement in the road safety scenario through our consistent Road Safety Programmes, Your active participation and support play a pivotal role in our collective efforts. Together, we can continue to drive progress in road safety and sustainability, making our roads safer, more efficient and environmentally responsible.

Thank you for your unwavering commitment to our shared mission.



Lt. Gen. Harpal Singh (Retd.)

Former E-in-C, Indian Armed Forces
President, IRF India Chapter

It is my privilege to communicate with you as the President of IRF's India Chapter. It's an honour to reflect on the impactful initiatives we have undertaken and the significance of this newsletter in our collective progress.

Our commitment to advancing road safety and innovation is exemplified through two key initiatives: the 5E Programme and School Zone Safety. IRF-IC's 5E Programme has been a cornerstone of our efforts, addressing road safety through Engineering of Roads, Engineering of Vehicles & Policy Advocacy, Education & Mass Awareness, Enforcement and Emergency Care. This initiative has not only expanded its reach but has also made notable contributions towards creating safer, more efficient and sustainable road networks across the Country.

School Zone Safety initiative underscores our dedication to safeguarding our most vulnerable road users and the children. It is disheartening to note that school students account for approximately 10% of the total fatalities due to inadequate infrastructure in vicinity of schools, as reported by the MoRTH. By partnering with Schools and local authorities, we are striving to create safer environments for school children through measures like Traffic Control Devices, Traffic Calming and Education Campaigns.

In this interconnected world, Newsletter is a crucial communication tool for our organization, ensuring you stay informed about our achievements, initiatives, and global collaborations. It fosters a sense of community, connecting you to the collective efforts.

I encourage you to remain engaged and active participants in our initiatives. Your support and commitment are the driving force behind our accomplishments.



AVOID RASH DRIVING...BE A COURTEOUS DRIVER

Initiative by  IRF (India Chapter)

School Zone Safety Programme

School Zone Safety refers to the measures and precautions implemented to ensure the safety of students in and around school areas, especially during school hours. These areas are specifically designed to help keep children safe as they travel to and from school. Certain parameters like Road Markings and Traffic Signages, Pedestrian crossings, Speed-calming measures, Footpaths etc. are being addressed.

Recently, IRF-IC launched a School Zone Safety Programme, which follows the guidelines outlined in the IRC:SP:32 for fostering a culture of safety and conducting capacity-building audits near schools. IRF-IC has also developed a [School Zone Safety Portal](#) that will bring Visibility about the School Zone Road Safety status in the public domain so that parents/citizens can see how safe the schools are, thereby paving way for improvements.

Each school will receive a unique login ID so they can have all the information related to the school's road safety zone. This will help the relevant departments and school administration to ensure the application of road safety zone standard. The School Zone Safety compliance by Schools will be ranked based on the results of the Audit/Survey with colour coding, thereby enabling parents and citizens to identify and relate them with safer infrastructure. It is envisaged that the programme will also hold the Authorities accountable for improving the infrastructure surrounding School Zones.

IRF-IC has an ambitious target of carryout Audits/Surveys of all 15 lakh plus schools of the Country by 2030 and rank the schools based on adherence to the safety standards.

This will not only improve school zone safety, saving lives of vulnerable children but will also educate and inculcate in them a sense of responsibility thereby fostering their growth as conscientious citizens.

In the first stage, we conducted School Zone Safety Audit of four schools, and the findings underscored the need for immediate improvements in school zone safety. The four schools are as under:

1. Modern Public School, Shalimar Bagh, New Delhi
2. Bluebells International School, GK-2, New Delhi
3. Mahavir Senior Model School, Ashok Vihar, New Delhi
4. Bal Bharati Public School, Dwarka Sec 12, New Delhi

As a next step, we are working closely with our partners like 3M India to adopt these schools and implement the necessary corrections identified during the audits. In collaboration with our partners, we aim to create safer environments for our students and ease the concerns of parents and guardians. It is our collective responsibility to provide an environment where children can focus on their education without the worry of potential hazards in their daily commute.

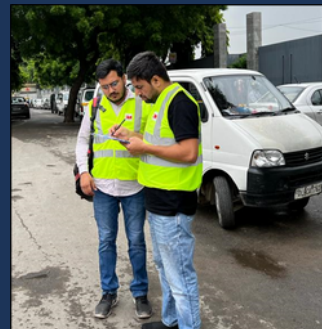
In conclusion, the audit of the four schools has highlighted the urgency of addressing safety concerns within their respective school zones. We are committed to implementing the necessary corrections and creating safe, secure, and welcoming environments for students. School zone safety is not just a matter of policy; it is a commitment to the well-being and future of our children.



Modern Public School, Shalimar Bagh, New Delhi



Bluebells School International, GK-2, New Delhi



Mahavir Senior Model School, Ashok Vihar, New Delhi



Bal Bharati Public School, Dwarka Sec 12, New Delhi

School Zone Safety Initiative -

Implementation of recommendation

In our journey towards a safer and more secure school environment, we took a significant step in the first stage of our School Zone Safety Initiative. We conducted thorough safety audits of the Schools, meticulously assessing every aspect of safety within our school zones. The findings of these audits were shared with the wider community by uploading them onto the [IRF-IC portal](#), a testament to our commitment to transparency and accountability.

Now, in the second stage of this important initiative, we're moving from assessment to action. We're actively implementing the survey recommendations that have been carefully crafted based on the insights and data gathered during the safety audits.

Loreto Convent School - Leading the Way:

One of our esteemed member 3M India is fundamentally a science-based company which is known for its imaginative products, and a leader in scores of markets – from health care and highway safety to office products and abrasives and adhesives. 3M India has come forward to undertake the corrections in the Loreto School Zones. The School audited by IRF-IC team, has been chosen for the implementation of a comprehensive set of safety measures. This includes improving Road Infrastructure, Signage, Traffic Management, and Educational Programs, all designed to create a safer environment for the students, staff and all road users in the vicinity.

More Members, More Impact:

The enthusiasm for this initiative is contagious. We have interest to take up a few school zones for correction by Avery Dennison India Pvt. Ltd and Orafol India Pvt Ltd. This collaborative spirit demonstrates the power of collective action and the positive impact we can have on school zone safety.

The journey has just begun, and with each school we audit and each member stepping up to implement safety measures, we are one step closer to creating safer and more secure school zones for our children.



Installation of Median Markers outside Loreto Convent School, New Delhi

Stay Tuned for Updates:

We will continue to share updates on the progress of our School Zone Safety Initiative and other endeavors as we work together to make our roads safer for everyone.

Thank you for your unwavering support and dedication to the cause of road safety. Together, we can make a significant impact.



Together we can save millions of lives! MAKE ROADS SAFE

Initiative by  IRF (India Chapter)

An IRF-IC & MBM University Initiative

We are delighted to announce a significant milestone in our journey towards improving road safety. IRF-IC and MBM University, Jodhpur have formally signed a Memorandum of Understanding (MoU) to launch an "Integrated Road Safety Initiative" in Jodhpur, Rajasthan.

The primary goals of this Memorandum are to foster a robust partnership between MBM University and IRF-IC, with a particular emphasis on addressing the pressing road safety issues in Jodhpur City.

Mechanisms of Cooperation:

Firstly, we place a strong emphasis on Knowledge Initiatives. To this end, we will jointly organize a range of activities, including road shows, educational workshops, promotional events, and the creation of customized references throughout the duration of this MoU. Secondly, both MBM University and IRF-IC will actively promote IRF's expertise in road safety through diverse communication channels, encompassing websites, newsletters, social media platforms, and more.

Finally, MBM University and IRF-IC will reciprocally extend invitations to one another or their representatives to conferences, meetings, seminars, and similar events.

IRF-IC's Commitment:

IRF-IC's dedication to the cause of road safety is resolute and multifaceted. Central to this commitment is the development of comprehensive strategies for

the 5E program, encompassing Engineering of Roads, Engineering of Vehicles & Policy Advocacy, Education & Mass Awareness, Enforcement, and Emergency Care.

These strategies will not only be crafted but also actively implemented in collaboration with relevant stakeholders, fostering a holistic approach to road safety enhancement.

Moreover, IRF-IC places a significant emphasis on Capacity Building. This entails the upskilling of enforcement personnel, equipping them with the knowledge and tools necessary to enforce road safety regulations effectively. In addition, the focus extends to the training and preparation of first-aid trauma care personnel, ensuring that they are well-equipped to respond swiftly and effectively to road-related emergencies.

Five Major Junctions Redesign:

As part of this initiative, IRF-IC and MBM University have chosen to take up the redesign and enhancement of five major junctions in Jodhpur. To kickstart this endeavor, a team of IRF-IC experts and students from MBM University have undertaken crucial surveys, including traffic movement, spot speed, and pedestrian count surveys. These surveys will serve as the foundation for redesigning these junctions to make them safer for the public.



Pledge to eliminate distractions while driving in School Zones

Do not talk or text on cell phone

Initiative by  IRF (India Chapter)

5th Lecture on the topic of Driver Psychology and Behavior- Influence of Technology

We are delighted to bring to you a recap of the recent and highly anticipated 5th lecture on “Driver Psychology and Behavior - Influence of Technology” held on 4th October, 2023. The lecture, which delved into the intriguing intersection of with the ever-evolving influence of technology.

The pivotal role of Artificial Intelligence (AI) in driver safety and behavior cannot be overstated. AI-powered systems and technologies are at the forefront of modern road safety initiatives. They continuously monitor driver behavior, anticipate potential risks, and assist in real-time decision-making. AI-driven driver assistance systems, predictive analysis, and advanced monitoring are key components in promoting safer and more responsible driving habits. These innovations, which rely on AI, not only enhance individual safety but also contribute to the broader goal of reducing accidents and making our roads significantly safer for everyone.

Guest Speaker at the lecture was Mr. Amit Kumar, He is an experienced Software Engineer with excellent debugging and data analysis skills, representing Netradyne and discussed the fascinating world of driver behavior monitoring through their innovative AI-based app. Netradyne's cutting-edge technology is set to transform how we understand and enhance driver behavior, contributing to safer roads and smarter transportation systems. His insights shed light on the future of road safety through AI-powered solutions. IRF-IC has been using the forum of Lecture Series to showcase innovative solutions/products encompassing various facets of Road Safety.

Mr. Venkata Chundru is a graduate from IIT Mumbai with a Master's Degree in Transportation Systems Engineering. With over 22 years of experience, he has specialized in Travel Demand Modeling, Operations and Maintenance of Intelligent Transportation Systems across Highways/Toll Roads, Airports etc. Arcadis Group added an enriching layer to our discussions by sharing insights about his company and their innovative approach to transportation and infrastructure. Arcadis Group's vision for a more efficient, sustainable and user-friendly transportation infrastructure promises a future where innovative solutions take the front seat in creating smarter and safer roads.

Mr. Nitin GR is an IITian and the CEO of GrandPitStop, a visionary in the field of pedestrian safety and two-wheeler rider security, shared his insights. Mr. Nitin brought to the forefront innovative technologies, such as airbags designed for two-wheelers, emphasizing the profound impact they have on enhancing road safety. They are on a mission to make roads safer for everyone and Mr. Nitin GR's views provided valuable insights into how technology can play a central role in achieving this vision.

These speakers, each from diverse backgrounds, converged on one common theme - the transformative power of technology in shaping driver psychology, enhancing road safety and innovating transportation infrastructure.

This 5th lecture was not just a forum for sharing knowledge but a dynamic platform where ideas, innovation and practical solutions came together to pave the way for a safer, more efficient and technology-driven future in the realm of transportation.



Be a Good Citizen - Do Not Cross Speed Limits

Initiative by  IRF (India Chapter)

The highlights of the recent IRF-IC event held at The Park Hotel, New Delhi on October 20th, 2023.

The event brought together a diverse group of like-minded individuals, corporates and NGOs, all united by a common goal - making our roads safer.

Key Moments from the Conference and Coalition for Road Safety:

A Uniting Moment:

The conference served as a unifying platform for various stakeholders passionate about road safety. More than 15 individuals, representing their organizations, enthusiastically joined hands and signed a coalition for road safety. This gesture symbolized a shared commitment to work collaboratively and relentlessly towards safer roads.

Inspirational Opening:

The event commenced with a warm welcome from our IRF-IC President (Emeritus), Mr. K.K. Kapila. He shared the vision of IRF-IC and the impactful work we are doing in the field of road safety. Mr. Kapila's opening remarks set the stage for the collaborative and productive discussions that followed.

Global Insights:

We were honored to have Mr. Jean Todt from the World Bank, who shared invaluable insights and perspectives on the importance of global collaboration for road safety. His presence and wisdom added a global dimension to our efforts.

A Symphony of Voices:

The conference was graced by representatives from esteemed organizations, including 3M India, Trax, Muskaan Foundation, Netradyne, GrandPitStop, PVR and many others. These representatives shared their views on the challenges and opportunities in the field of road safety, fostering a dynamic and forward-thinking atmosphere.

The event was not just about discussions; it was about action, commitment, and tangible steps forward. It was about pooling our collective resources, knowledge and passion to drive change in the realm of road safety.

Looking Forward:

The Road Safety Coalition formed during this event signifies the beginning of a powerful journey towards safer roads. Together, we will embark on a mission to reduce accidents, save lives and make our roads more secure.

We thank all our partners, participants and speakers for their enthusiastic involvement in this event. Your support and commitment will be instrumental in shaping the future of road safety.

These speakers, each from diverse backgrounds, converged on one common theme - the transformative power of technology in shaping driver psychology, enhancing road safety, and innovating transportation infrastructure.

Stay Tuned:

We have exciting developments and initiatives in the pipeline, and we encourage you to stay connected with us for updates on future events, collaborations and opportunities to make a difference.

Thank you for being part of the IRF-IC community and for your dedication to road safety.



MORE THAN 1.5 LAKH ACCIDENT DEATHS EACH YEAR IN THE COUNTRY



Ahmedabad, Road safety experts have urged the government to treat road traffic accidents on similar lines as COVID pandemic in the country. "During coronavirus pandemic, the government took various measures including prevention and treatment to effectively check the spread of the pandemic. Country having more than 1.50 lakh road accident deaths

in road crashes in the country is no less than a pandemic which can effectively be checked and handled with the government support" said Ms Pooja Bajaj, herself an accident victim and a road safety promoter while delivering a lecture on "Challenges faced by an accident victim" organised by India chapter of the International Road Federation (IRF) "With few thousand deaths during the corona pandemic both central and state governments woke up and took quick moves to prevent and treat the spread of deadly coronavirus. With India accounting for the highest road accident deaths and injuries in the world, the government should take similar steps to prevent fatal road accidents," said Ms Bajaj.

About 25% of road traffic violations in Delhi on account of faulty road environment



Delhi, Traffic police in Delhi and other parts of National Capital Region and other parts of the country is facing a major challenge in the form of administrative violations like not having driving license, not having valid license, not having valid insurance, not having valid tax, not having valid registration, etc. The traffic police in Delhi is facing a major challenge in the form of administrative violations like not having driving license, not having valid license, not having valid insurance, not having valid tax, not having valid registration, etc.

The traffic police in Delhi is facing a major challenge in the form of administrative violations like not having driving license, not having valid license, not having valid insurance, not having valid tax, not having valid registration, etc. The traffic police in Delhi is facing a major challenge in the form of administrative violations like not having driving license, not having valid license, not having valid insurance, not having valid tax, not having valid registration, etc.

Harpal Singh takes over as President of International Road Federation - India Chapter



New Delhi, Lt Gen Harpal Singh former Engineer-in-Chief (IC) Indian Armed Forces has taken over as president of India chapter of International Road Federation (IRF), global road safety body working for better and safer roads world-wide. The Governing Council of the International Road Federation-India Chapter on 15th March 2023 unanimously endorsed Lt Gen Harpal Singh as President, IRF-IC. He takes over from Mr. Satish Parashk, Managing Director, Ashoka Buildcon Limited, Lt Gen. Harpal Singh is a former E-IC and Director General of Border Roads Organisation (BRO), Military Engineering Ser-

ices (MES) is a premier construction agency and one of the pillars of Corps of Engineers of the Indian Army which provides rear line engineering support to the Armed Forces. It is one of the largest construction and maintenance agencies in India responsible for creating the strategic and the operational infrastructure as also the administrative habitat for all three Services and the associated organisations of the Ministry of Defence, Lt Gen Harpal Singh is credited with the resurgence of BRO. His notable contribution has been the completion of Atal Tunnel, Lt Gen Harpal Singh has a deep engagement in road safety related aspects. He was involved in the ITS setup in the IRF-IC. His vision is to work closely with the dynamic Governing Council, a few members of the Council being unanimously chosen alongside him. His prime agenda is to task the members with a SMART and GROWTH oriented programs like enhanced membership engagements, Seminars / Conferences, Yearbook, etc. Besides, he will be focused on enhancing membership of all the States and Union Territories in India as this will form a backbone for the implementation of IRF-IC's National Road Safety Action Plan as well as the SE program of a Safe Road System. "As a hands-on person, my vision is to establish IRF-IC as an invincible body of knowledge, information and know-how to address road safety issues in the country."

Road safety experts stress on need for policy on safe road transportation

New Delhi, Road safety experts have urged the government to treat road traffic accidents on similar lines as COVID pandemic in the country. "During coronavirus pandemic, the government took various measures including prevention and treatment to effectively check the spread of the pandemic. Country having more than 1.50 lakh road accident deaths

in road crashes in the country is no less than a pandemic which can effectively be checked and handled with the government support" said Ms Pooja Bajaj, herself an accident victim and a road safety promoter while delivering a lecture on "Challenges faced by an accident victim" organised by India chapter of the International Road Federation (IRF) "With few thousand deaths during the corona pandemic both central and state governments woke up and took quick moves to prevent and treat the spread of deadly coronavirus. With India accounting for the highest road accident deaths and injuries in the world, the government should take similar steps to prevent fatal road accidents," said Ms Bajaj.

The traffic police in Delhi is facing a major challenge in the form of administrative violations like not having driving license, not having valid license, not having valid insurance, not having valid tax, not having valid registration, etc. The traffic police in Delhi is facing a major challenge in the form of administrative violations like not having driving license, not having valid license, not having valid insurance, not having valid tax, not having valid registration, etc.

IRF expresses concern at increasing number of road accident deaths as per latest data



New Delhi, International Road Federation (IRF) has expressed concern at the increasing number of road accidents as per latest data. The IRF has expressed concern at the increasing number of road accidents as per latest data. The IRF has expressed concern at the increasing number of road accidents as per latest data.

The IRF has expressed concern at the increasing number of road accidents as per latest data. The IRF has expressed concern at the increasing number of road accidents as per latest data. The IRF has expressed concern at the increasing number of road accidents as per latest data.



IRF-IC i News Media

INDIA CHAPTER

IRF urges govt to treat road accidents in India on lines of coronavirus pandemic

New Delhi, Road safety experts have urged the government to treat road traffic accidents on similar lines as COVID pandemic in the country. "During coronavirus pandemic, the government took various measures including prevention and treatment to effectively check the spread of the pandemic. Country having more than 1.50 lakh road accident deaths

in road crashes in the country is no less than a pandemic which can effectively be checked and handled with the government support" said Ms Pooja Bajaj, herself an accident victim and a road safety promoter while delivering a lecture on "Challenges faced by an accident victim" organised by India chapter of the International Road Federation (IRF) "With few thousand deaths during the corona pandemic both central and state governments woke up and took quick moves to prevent and treat the spread of deadly coronavirus. With India accounting for the highest road accident deaths and injuries in the world, the government should take similar steps to prevent fatal road accidents," said Ms Bajaj.

The traffic police in Delhi is facing a major challenge in the form of administrative violations like not having driving license, not having valid license, not having valid insurance, not having valid tax, not having valid registration, etc. The traffic police in Delhi is facing a major challenge in the form of administrative violations like not having driving license, not having valid license, not having valid insurance, not having valid tax, not having valid registration, etc.

'Enforcement during rush hours by traffic police key to Delhi traffic woes'

New Delhi, Traffic police in Delhi is facing a major challenge in the form of administrative violations like not having driving license, not having valid license, not having valid insurance, not having valid tax, not having valid registration, etc. The traffic police in Delhi is facing a major challenge in the form of administrative violations like not having driving license, not having valid license, not having valid insurance, not having valid tax, not having valid registration, etc.

The IRF has expressed concern at the increasing number of road accidents as per latest data. The IRF has expressed concern at the increasing number of road accidents as per latest data. The IRF has expressed concern at the increasing number of road accidents as per latest data.

TRAFFIC MANAGEMENT IN A JAM ON SG HIGHWAY

New Delhi, Traffic police in Delhi is facing a major challenge in the form of administrative violations like not having driving license, not having valid license, not having valid insurance, not having valid tax, not having valid registration, etc. The traffic police in Delhi is facing a major challenge in the form of administrative violations like not having driving license, not having valid license, not having valid insurance, not having valid tax, not having valid registration, etc.

The traffic police in Delhi is facing a major challenge in the form of administrative violations like not having driving license, not having valid license, not having valid insurance, not having valid tax, not having valid registration, etc. The traffic police in Delhi is facing a major challenge in the form of administrative violations like not having driving license, not having valid license, not having valid insurance, not having valid tax, not having valid registration, etc.

The traffic police in Delhi is facing a major challenge in the form of administrative violations like not having driving license, not having valid license, not having valid insurance, not having valid tax, not having valid registration, etc. The traffic police in Delhi is facing a major challenge in the form of administrative violations like not having driving license, not having valid license, not having valid insurance, not having valid tax, not having valid registration, etc.

About 25% of road traffic violations in Delhi on account of faulty road environment

Delhi, Traffic police in Delhi is facing a major challenge in the form of administrative violations like not having driving license, not having valid license, not having valid insurance, not having valid tax, not having valid registration, etc. The traffic police in Delhi is facing a major challenge in the form of administrative violations like not having driving license, not having valid license, not having valid insurance, not having valid tax, not having valid registration, etc.

The traffic police in Delhi is facing a major challenge in the form of administrative violations like not having driving license, not having valid license, not having valid insurance, not having valid tax, not having valid registration, etc. The traffic police in Delhi is facing a major challenge in the form of administrative violations like not having driving license, not having valid license, not having valid insurance, not having valid tax, not having valid registration, etc.

Formal Inauguration of IHIF Rehab Centre, Noida

With the very kind CSR support of SBI Foundation, IHIF has set up the fourth Physiotherapy & Neuro Rehab Centre with a specialized Paediatric Unit in Noida (UP) under the "Project Sahyog". The Centre was inaugurated by Shri Sanjay Prakash, MD, SBI Foundation and His Highness Maharaja Gaj Singh of Marwar-Jodhpur, Chairman IHIF. Her Highness Maharani Hemlata Rajye also graced the occasion.

The aim is to provide an independent mobilization & living for traumatic injury victims/ accidents survivors, persons with disabilities, specially abled children and people with ortho and other neurological deficits through provision of post-hospital care, and neuro-rehabilitation. The Centre's focus is primarily to facilitate the community from the weaker sections of our society at no cost to them.

We are grateful to SBIF for believing in us and understanding the importance and need of "Physiotherapy and Neuro Rehabilitation". It is necessary for our citizens to realise that patients with neurological deficiencies and other traumatic injuries need to survive and lead a happy life. Caregivers also need to understand that complaining about their wards is neither helping them or the patient. We all should remember that "Disability is not Inability". The inauguration date of the Noida Centre viz., 23rd August 2023 shall ever remain etched in our memory as it is the same day on which Chandrayaan-3 landed on the moon.

IHIF now has four Charitable Physiotherapy & Neuro Rehabilitation Centres in Delhi, Patna, Jodhpur & Noida respectively.

Mr. K. K. Kapila also graced the Event.



Review of Legibility Index and Font Size Requirement for Direction Information Sign Based on Indian and International Guidelines

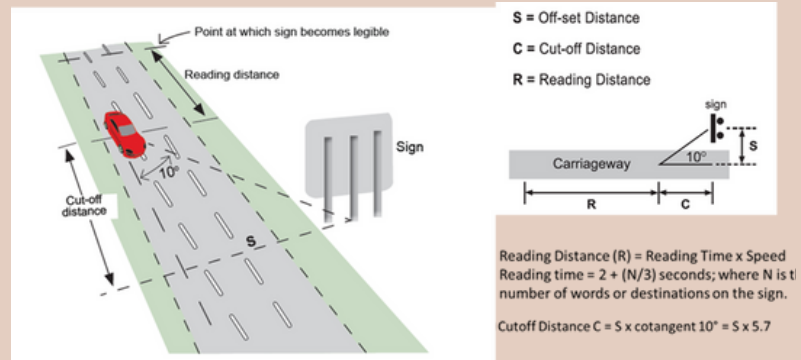
Pramod P Bhaskar and Mohsinkhan A.U.
 Traffic Engineering Team, Traffic Safety Division, 3M India Ltd
ppbhaskar@mmm.com and ma.u@mmm.com

Introduction

Direction information signs are extremely important for the safety and efficiency of any road network. These signs provide crucial information about the correct routes and the necessary manoeuvres to follow especially while approaching any intersection. When these signs are illegible or missing, drivers may make incorrect turns or drive at unsafe speeds, putting themselves and others in danger. Additionally, a clear and easily readable sign can help reduce driver frustration and anxiety, which can further contribute to safer driving conditions.

As per the current regulatory standards for Indian roads, guidelines in IRC 67 are to be referred for the design of direction signs. This article compares these guidelines with various international guidelines available for the font size determination for different types of direction information signs. Table 12.1 of IRC 67-2022[3] specifies the font size to be adopted as per the design speed of the road, type of direction sign board and mounting format. The determination of font sizes is a multi-criteria complex procedure based on certain assumptions which are detailed out in Annexure VI of the code. In detailed analysis of the same, it is understood that the font size calculation methodology has been modified based on Appendix D of United Kingdom's Traffic Signs Manual (2018)[4] Chapter 7 – Design of Traffic Signs” as shown below.

The font size is finalized based on the total distance (including the cutoff and reading distance) from which



the sign will have to be legible and the legibility index assumption.

The reading distance is dependent on the number of words in the sign and the cut-off distance is based on the mounting location/pattern.

$$\text{Font Size in mm} = \frac{\text{Total Legibility Distance in metre}}{\text{Legibility Index assumption}}$$

Legibility Index Assumption

Legibility Index is the ratio of the distance at which material can be read with perfect accuracy (the legibility distance) to the character height. It is generally expressed as LI 30 or LI 40 or LI 50. LI 30 implies that the 1-inch-high letter height will be legible from 30 feet.



LIMIT SPEED FOR YOUR OWN SAFETY
Life is short - Don't rush it!

Initiative by IRF (India Chapter)

When analyzing Appendix D of chapter 7 of UK Traffic Signs Manual and Annexure VI of IRC 67-2012[5], a clear difference in the Legibility Index Assumption is there between the UK and Indian standards. Also, on comparing the Appendix E of Chapter 7 of UK traffic sign manual with the Table 11.1 of IRC 67-2012, the UK traffic sign manual is based on approach/operating speed whereas IRC 67 is based on design speed and the direction sign categorization is not based on mounting format in UK Traffic Sign Manual.

UK Traffic Signs Manual states that for a destination name to be visible from 60m, the font size (small letter - "x" height) should be 100 mm which when converted to feet and inches will be 50 feet and 1 inch thus giving a LI value of 50. IRC takes the same assumption but with the Capital letter - "X" height. That means, if the destination name is to be read from 60m, the capital letter height should be 100 mm, thus equating to a **LI assumption of 50 but with capital letter height.**

Referring to the updates happening with the LI assumptions globally because of the increase in number of ageing drivers, specifically the Manual on Uniform Traffic Control Devices (MUTCD) 2009 edition[6], now adopting a LI of 30 as to the previous LI assumption of LI 40 in 2003 edition. The IRC 67-2022 also considers an update in LI value from LI 50 (assumed in the previous revision i.e. IRC 67-12) to LI 45. Due to the absence of any studies on LI standards in India or research papers showing the increase in ageing drivers in India, the legibility index revision assumption is still limited to LI 45. Thus, for a destination name to be visible from 60m, the letter height (capital letter- X) should be 110 mm.

But as suggested by the MUTCD 2003 edition as well as in "Code of Practice of Signages (Chapter 4) for Urban Roads"[7] prepared by the Transportation Research and Injury Prevention Programme (TRIPP) for the Institute of Urban Transport (IUT),

Ministry of Urban Development, due to the increasing average age of motorists, 40 feet per inch shall be used as the Legibility Index assumption. This LI assumption needs to be verified after proper site data collection through sample surveys or through "in lab" simulations with users of various age categories and having various vision ranges along with secondary data on revalidation about the percentage increase in ageing drivers.

On reviewing multiple studies [8],[9],[10] done mostly in the United States, it is understood that the Legibility Index assumption itself is a complex topic with various determinant factors like the fonts used, age of the driver, the type and color of the retro reflective sheeting, etc. Currently the assumption of LI 30 as per the MUTCD 2009 edition, corresponding to 20/40 vision, will be able to accommodate a greater proportion of aging drivers under a wider range of viewing conditions.

In India, driving license is issued by the Regional Transport Offices of each state and the procedure is regulated by the Motor Vehicle Act (MVA) 1988, amended in 2019. Also, there is gross underreporting of visual disability at the time of primary application for driving license or renewal. Several studies in India conclusively show that the active licensed drivers have significant visual morbidity that would predispose them to the risk of road traffic accidents [11]. When the Visual Standards criteria for driving [12] for multiple RTOs in India is analyzed, it is understood that the worse eye corrected visual acuity of 6/12 or better is required for getting a license for driving Category II vehicle (Transport vehicles- Heavy Motor Vehicles, Commercial Passenger carrying vehicles) and binocularly, with glass correction, the candidate should be able to read 6/12 or better to get a license for Category 1 vehicles (Motorcycles and Light Motor Vehicles). This is equivalent to the above requirement of 20/40 vision as in MUTCD standards and hence the same legibility index assumption of LI 30 shall be followed for ensuring that people having lower vision capabilities are also benefited with the Direction Signs.

Total Legibility Distance Calculation

The total legibility distance calculation including the reading distance and the cutoff distance is extensively tabulated for both mounting patterns (shoulder mounted / overhead mounted signs) and for various design speeds. But the increase in the reading time (ranging from 4 to 6 seconds) and subsequently increasing the reading distance for gantry mounted signs in Table VI.3 of Annexure VI of IRC 67 needs further analysis. Also, the cutoff distance calculation for shoulder mounted signs currently is based on the most common lane configuration seen for the design speed values. Considering the above two facts, more research is required for finalizing the total legibility distance by calculating the reading and cutoff distance more realistically as per the requirements. Ideally an equation shall be developed for calculating the total legibility distance based on the design speed, number of words, and offset distance.

Other Categories of Direction Signs

Currently the font size calculation for the other categories of direction signs like Flag Type direction signs/ Place Identification signs and Reassurance Direction signs are combined in one column in IRC 67 Table 12.1. This may also be verified or backed up based on the number of destination names and the mounting pattern, especially the reassurance sign which will be having three destinations just like the advance direction sign.

Scope for Further Research in Font Size Determination

With multiple high speed corridors coming up in the country as part of the infrastructure development and as per the improved life expectancy rates that we are seeing globally, there is an urgent requirement for further research either through actual field experiments or through lab simulated studies including people from various age groups and vision capabilities subjected to various types of direction information signs under multiple site conditions for establishing a proper clarity on font size estimation for Indian roads by establishing the following parameters.

- Finalize the correct legibility index assumptions for font size determination
- What LI to be adopted for Indian scenario considering the increase in ageing driver population - LI 45 or LI 40 or LI 30.
- Calculation of Reading Distance and Cutoff Distance as per actual field data.
- Developing a more comprehensive equation for deriving the font size or creating a matrix for font size considering the various design speeds, mounting format and number of words.
- Whether font size of reassurance sign to be calculated like shoulder mounted advance direction sign or gantry mounted direction signs and whether the font size of the flag type direction sign or place identification sign to be calculated based on the number of destination names.



References

1. Ministry of Road Transport and Highways, Annual Report 2022-23
2. Year End Review- 2022: Ministry of Road Transport and Highways,
<https://pib.gov.in/PressReleasePage.aspx?PRID=1888480>
3. IRC 67-2022, Code of Practice for Road Signs, Fourth Revision
4. Traffic Signs Manual - 2018, Chapter 7, The Design of Traffic Signs, Department for Transport, United Kingdom
5. IRC 67-2012, Code of Practice for Road Signs, Third Revision
6. MUTCD, Manual on Uniform Traffic Control Devices, USDOT Federal Highway Administration, 2003 and 2009
7. Code of Practice of Signages (Chapter 4) for Urban Roads - 2012, Institute of Urban Transport
8. H. Gene Hawkins, Jr., Mark D. Wooldridge, A. Bowman Kelly, Dale L. Picha, and Francis K. Greene, 2009 - Legibility Comparison of Three Freeway Guide Sign Alphabets
9. Thomas Schnell, Lora Yekhshatyan, and Ron Daiker, 2009 - Effect of Luminance and Text Size on Information Acquisition Time from Traffic Signs
10. Highway Design Handbook for Older Drivers and Pedestrians - FHWA-RD-01-103, 2001, USDOT Federal Highway Administration
11. Honavar S G., Driving blind - Should tests of visual function be mandatory for driving license? Indian J Ophthalmology 2019; 67:193-4.
12. Visual Standards criteria for driving -
[https://www.ism.kerala.gov.in/images/pdf/forms/Certificate for visual standards for driving.pdf](https://www.ism.kerala.gov.in/images/pdf/forms/Certificate%20for%20visual%20standards%20for%20driving.pdf)

Overloaded vehicles are accident - prone. Respect Load Limits !!

Initiative by  IRF (India Chapter)



Urgent Need for Road Safety 2.0: How New Age Technology - Driven Road Safety Measures can Prevent Road Accidents in India

Akhilesh Kumar Srivastava
World Economic Forum
akhilesh1467@gmail.com

As per the Ministry of Road Transport and Highways, over 431 valuable lives are lost daily on Indian roads because road safety is ignored. As per WHO and many other reports, the actual figures are much higher than this. The under-reporting of the number of injured people in road accidents is much higher.

The unfortunate fatal road accident of Cyrus Mistry suddenly brought the media's attention on road safety. Another accident of cricketer Rishabh Pant also drew the attention of the media on road safety, but these attentions are usually short-lived, and nothing substantially moves forward after the initial euphoria. This is not the first time such a tragedy is witnessed. A Maharashtra MLA recently died in a road accident. Cabinet Minister Gopinath Munde died in one such accident in 2014. Famous comedian Jaspal Bhatti met a similar fate in 2012. The fact is that one life is lost on Indian roads every 4 minutes! Nearly 1.3 million people died on Indian roads in the past decade.

Road traffic injuries (RTIs) are the leading cause of death globally for all ages and the first cause in the 5 to 29 years age group. Close to 1.55 lakh people die each year in India, and up to 4.5 lakh are injured by RTIs. More than 65% of these deaths are caused to vulnerable road users (i.e., pedestrians, cyclists, and motorcyclists).

Road traffic accidents reduce countries' annual GDP by a range of 1–3%. India fares worst with the highest number of global road fatalities. With just only 1% of the world's vehicles, India accounts for 11% of crash-related deaths, denting the Indian economy by nearly US\$ 38.9 billion, equivalent to 1.85% of GDP. If WHO figures for accidents are taken, the impact on GDP will be over 3.5%.

The traditional approach to road safety is not yielding the desired results, which is evident from the fact that despite some exciting and promising efforts like developing Zero fatality corridors, identifying & fixing blackspots, installing cameras for enforcement, etc., the highest number of road fatalities took place in 2021.

Where are we going wrong?

“Nothing works except in context, and finding out what works where and under what circumstances is a real scientific endeavour.” – Prof Angus Deaton.

Mere copying Western road safety solutions will not work on Indian roads with multi-layered problems. The traffic is not homogeneous like in Western countries, In India, over 60% of traffic constitutes two-wheelers. Unlike in Western countries, the heterogeneous traffic on Indian roads constitutes pedestrians, cyclists, motorcycles, cars, buses, commercial vehicles, trucks, tractors, and at times, animals also. Similarly, in High-Income western countries, maximum accidents revolve around cars, but in India, two-wheelers and pedestrians are the most vulnerable road users, with 60% of fatalities and injuries. The road safety measures of the Western countries are more focused on safety measures within cars like seatbelts, airbags, etc., whereas we need more focus on safety measures outside of cars without compromising the in-vehicle safety measures. Therefore adopting Western road safety parameters will not provide a human-centric solution in the Indian context.

An Indian solution will fit to the context of geo-socio-political scenarios and economic realities, where technology compensates for human limitations and encourages good drivers by creating a human-centric ecosystem. The engineering and road design problems are required to be addressed based on the traffic composition; there should be separate and enough lanes, foot-over bridges, and flyovers for the two-wheelers and pedestrians as far as possible. Vehicle safety features should comprise both within the vehicle and outside of the vehicle, depending on the vulnerable road users.

Similarly, we need to improvise the enforcement system with our innovative solutions considering the complexity of enforcement in India due to the dense population, shortage of traffic police manpower, the huge cost of automated enforcement systems, and the challenging financial positions of most of the municipalities. We need a carrot and stick approach to enforcement using low-cost technologies within our means, such as we can change driving behaviour by incentivizing good drivers rather than wasting time, energy and money on identifying and punishing bad drivers.

Identifying Road Safety & Risk Issues

Road safety has always been a complex and multifaceted issue. Despite many factors leading to fatal and non-fatal road injuries, the evidence identifies that four main risk factors consistently increase the risk for road crash related injuries and deaths, and are hence acknowledged by the WHO as major risk factors.

- speeding,
- drunk driving,
- driving two wheelers without helmet.
- driving vehicles without seatbelt.

According to a study published in The Lancet journal, at least 30,000 lives in India could have been saved just by the implementation of simple road safety measures to prevent the above four main risk factors. World Economic Forum-led Road Safety 2.0 pilots also reveal that majority of accidents are due to human errors and can be prevented with the use of technology to compensate for human limitations. Besides human errors, the deficits in road engineering that create accident-prone spots and the sudden appearance of potholes, and poor safety measures in vehicles also contribute to the accidents. But the major reason remains the driving behaviour.

How to Improve

Having identified the major risk factors of road accidents, the next question is how to improve the driver's behaviour to ensure adherence to traffic rules. The study reveals that the behaviour can be changed either by the fear of penalty through strict enforcement or by self-motivation through incentives. For a densely populated country like India, encouraging and self-motivating drivers for better driving through incentives and rewards can be a better option.

Reward Good Drivers

Road Safety 2.0 concept of tracking driver's behaviour through IoT and converting it into easily understandable scores called Safe Driving Scores, which can be popularized like CIBIL Scores by linking various road and vehicle-related incentives/financial benefits with it. Mandating a Safe Driving Score for every DL holder can be a real game changer for road safety in India.

The success of the World Economic Forum (WEF) led Road Safety 2.0 pilots demonstrated that this theory is more effective with a drastic reduction in accidents.

Safe Driving Scores

The driver's behaviour which is a subjective matter, can be tracked using IoT and converted into scores on a real-time basis that may be called Safe Driving Scores. Incentive schemes for encouraging SDS by linking it with all road and vehicle-related transactions, such as rebates in Insurance Premiums, rebates at Vehicle Workshops, and Wayside Amenities for drivers like CIBIL score can be a game changer for road safety in India.



Ecosystem to Reward Safe Driving Scores

There is a need to create an ecosystem to reward these scores.

For commercial vehicle drivers, this will generate a new revenue source for safe drivers as every transporter will prefer drivers with higher SDS, which will automatically create a ranking system of drivers based on their Safe Driving Scores. Insurance companies, who are major stakeholders can now come forward through regulatory modifications by IRDAI. This will reduce the dependency on third-party road safety funding and create a self-sustainable ecosystem. Safe Driving Scores mean better drivers who will get more rebates in insurance premiums. Similarly, a good/careful driver will lead to lesser accidents and thus a lesser pay-out for insurance companies. Thus, drivers will crave for higher Safe Driving Scores to get maximum rebates in the insurance premiums, thus driving safely, resulting in fewer road accidents.

Tech-Based Automated Enforcement System

The self-motivating measures for improving drivers' behaviours alone may not be a complete solution for road safety. Strict and transparent enforcement systems of traffic rules are equally essential. Both are complementary to each other.

The enforcement system needs to be automated, comprising speed cameras, incident detection cameras and ANPR systems, IoTs, and high-end software for real-time detection of violations and issuance of automated penalty challans with a robust recovery system.

But the problem with an automated system is not the availability of technology but the availability of funds. The hardware and software of automated enforcement systems are expensive and require skilled manpower for flawless operations. Most Indian cities and municipalities don't have enough financial resources. Here the cities require the PPP model.

How to Implement an Automated Enforcement System on PPP Model

World Economic Forum did a pilot for the automated enforcement system on the PPP model and found it quite effective and economically viable.

The technology companies / OEMs are ready to bear the upfront installation cost and 5 to 7 years of operation and management cost through their skilled manpower and to recover their Capex & Opex cost as a fixed annuity or as a part of challans/penalty recovered by the government. This is not only financially viable but will also bring additional revenue to cities/municipalities, improving road safety and providing many job opportunities.

A win-win for everyone

Only with these measures will it be possible to achieve the target of reducing road deaths by 50%, otherwise the same old story will continue once the media euphoria is over.

Safe Behaviour on Road is an Attitude
Please have it !

Initiative by  IRF (India Chapter)

Upcoming Events

21st November 2023

7th lecture of IRF-IC on

“Road safety in India – A function of 5E’s.”



8th December 2023

8th lecture of IRF-IC on

“Road safety Learning - The Ideal Age to Start.”



29th February - 1st March 2024

National Conference & Exhibition on

Sustainable Construction Materials Sustainable Construction Materials and New Technologies and New Technologies and New Technologies: Trajectory to Sustainable Trajectory to Sustainable Growth (SCM-TSG)



**Over Speed is a Knife
That Cut the Life**

save life



Suggestions of Members

IRF-IC would like to receive your suggestions and ideas for improvement in the Newsletter and our activities.

Membership

IRF-IC is a membership based organization, representing corporate and 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 "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.



IRF-IC Newsletter intends to reach a wide audience in India. We, therefore seek to project & showcase activities of all our honorable Members. Your contributions in the form of brief reports of your activities, events, awards, brief articles and other accomplishments are invited.

Editorial Board

Editor : Mr. Somenath Ghosh
Members : Mr. Akhilesh Srivastava, Ms. Aruna Shankari, Ms. Pooja Bajaj, Mr. Hari Krishna

International Road Federation (India Chapter)

A-9A, 3rd Floor, Green Park, New Delhi, Delhi 110016,
Tel:011-40041435
Email : india@irf.org.in, Website : www.indiairf.com



Reviews are really important to us. We'd love to hear about your experience.