2020 Annual Report
An Executive Summary of Activities

www.IRF.global
Visit our website at www.IRF.global, where you can sign-up for our newsletters and learn more about our global program of work.

REGIONAL CONTACTS

Asia Pacific  
asia@IRF.global

Europe & Central Asia  
eca@IRF.global

Latin America & Caribbean  
lac@IRF.global

Middle East & North Africa  
mena@IRF.global

North America  
info@IRF.global

Sub-Saharan Africa  
africa@IRF.global

2020 IRF EXECUTIVE SUMMARY & ANNUAL REPORT

Copyright © 2020 by International Road Federation

This volume is a product of the International Road Federation.

Rights and Permissions

For permission requests, write to the IRF at:
International Road Federation
Madison Place 500 Montgomery Street Fifth Floor
Alexandria, VA 22314 USA
Tel: +1 703 535 1001 | Fax: +1 703 535 1007

www.IRF.global

Printed in the United States of America
# TABLE OF CONTENTS

## ABOUT
- Chairman’s Foreword ........................................................................ 2
- At-A-Glance ....................................................................................... 3
- IRF Board of Directors ....................................................................... 4
- IRF Committees .................................................................................. 5
- A Global Footprint .............................................................................. 6

## CONFERENCE HIGHLIGHTS
- Conferences ....................................................................................... 10
- 18th IRF World Meeting & Exhibition .................................................. 12

## THE INDUSTRY’S MOST TRUSTED BRAND IN EXECUTIVE EDUCATION
- Expanded Training Curriculum ............................................................. 16
- 2020 Calendar of Events ...................................................................... 18

## THE WORLD’S LEADING ROAD ADVOCATE
- White Papers ....................................................................................... 22
- Sharing Knowledge Across Borders ..................................................... 25
- IRF Awards .......................................................................................... 26

## PREPARING THE NEXT GENERATION
- An Opportunity To Learn From Successful Transportation Leaders ....... 30
- Named Fellowship Grants .................................................................... 31
- Future Fund Donors ........................................................................... 32
- Partner Organizations .......................................................................... 34
- Multilateral Institutions ....................................................................... 36
- Federal & State Agencies ..................................................................... 36
- Sponsors .............................................................................................. Inside back cover

---

2020 Annual Report: An Executive Summary of Activities
2020 was marked by an unprecedented pandemic that sent shockwaves through our communities and deeply disrupted transportation trends, as governments around the world sought ways to mitigate its spread.

However, the unique circumstances surrounding the COVID-19 pandemic must not detract attention from our industry’s persisting challenges, or from the opportunities to leverage new approaches and technologies.

Now, more than ever, the world needs access to resilient, safe and smart road infrastructure capable of serving new mobility needs. The arrival of a new generation of connected and autonomous vehicles is a powerful opportunity for “no regret” investments to keep our roadway infrastructure in a good state of repair.

And at a time when many transportation professionals were unable to travel, I am pleased to report that the International Road Federation redoubled efforts throughout the year to offer eLearning webinars, virtual conferences, and online training tools which collectively allowed more than 5,000 professionals to access IRF’s global pool of knowledge resources from the safety of their home or office.

Building on experience accumulated over seven decades, IRF’s eLearning programs not only provide the most relevant, up-to-date information and best practices and solutions, but are also designed to assist attendees in learning to correctly apply the knowledge gained. Accessing IRF’s unique curriculum and lectures developed by world-class specialists, getting up to speed or gaining new insights in less time and with no travel constraints, and benefiting from small classrooms as well as self-paced options are just some of the advantages of virtual delivery.

Whether you are a representative of a highway agency, a member of a financing institution, consultant or contractor, IRF’s online education services will give you the necessary tools to effect real change in your organization faster and at lower cost.

Through its achievements and successes in 2020, the International Road Federation has demonstrated it remains a committed partner to road organizations in over 80 countries around the world.

As the world, and our industry, emerge from the current pandemic, we have another event to look forward to: the 18th IRF World Meeting & Exhibition which will be held in Dubai on November 7-10, 2021. IRF World Meetings are an important focal point for transportation agencies, academics, and road professionals worldwide. The 18th edition, organized with the Dubai Roads & Transport Authority (RTA), will take on a special meaning in the wake of the COVID-19 pandemic, but also on account of our collective mandate to prepare the transition towards safer, smarter, and greener road mobility.

As host of the 17th IRF World Meeting in Riyadh, I can attest to the transformative impact this event has had for my home, the Kingdom of Saudi Arabia.

The presence of policy makers and road professionals, from different regions of the world and at different stages in their careers, is an essential component of IRF World Meetings. I call upon the global transport community to fully engage in helping us deliver the most successful and forward-looking IRF World Meeting to date!
IRF AT-A-GLANCE

Share, Engage & Grow with the IRF

Share: IRF was founded with the goal of spreading knowledge and best practices. At the heart of this process are the innovations developed by our member organizations which are featured at IRF events, in webinars, and through our awards program.

Engage: Membership of the IRF is a gateway to leading industry specialists in more than 80 countries. Working through committees and task forces, our members enrich one another with new perspectives made possible when government, industry and academia work together.

Grow: We help our members enhance the professional qualification of their personnel through our continuing education services, and implement their expansion strategies, through our global program of events.

IRF MILESTONES

- 1948: Chartered IRF in Washington, DC
- 1949: Established the International Road Educational Foundation (REF)
- 1952: Held 1st IRF World Meeting
- 1954: Awarded First IRF Fellowships
- 1975: Included Governments as Full Members
- 2001: Created IRF Global Road Achievement Awards (GRAAs)
- 2013: Held 17th IRF World Meeting & Exhibition in Saudi Arabia
- 2014: Established IRF Global
- 2016: Held 1st IRF Global R2T Conference & Exhibition
- 2017: Launched IRF Examiner
- 2018: Opened IRF Global Training Institute
- 2019: Presented 175th GRAA
- 2020: Awarded 1,450th IRF Fellowship
- 2021: Opened IRF Virtual Training Institute
- 2020 Annual Report: An Executive Summary of Activities
IRF BOARD OF DIRECTORS

With leadership from 27 countries, the IRF Board of Directors represents all aspects of the road and transport industry, including government, academia, and the private sector, and truly reflects the IRF’s status as a global federation.

Chairman
Abdullah A. Al-Mogbel
Kingdom of Saudi Arabia

Past Chairman
Brian Stearman
Parsons Corporation (retired) | USA

Elected Directors to Serve on the Executive Committee (2020-2021)
Fernando Vilhena
Armco Staco | Brazil

Robert Jaffe
Consensus Systems Technologies | USA

Omar Smadi
Iowa State University | USA

Maeda Corporation
TBN | Japan

Ministry of Energy & Infrastructure
Abdelrahman Ali Abdulla Almahmoud | UAE

Ministry of Transport
Abdullah Al-Mogbel (formerly with) | KSA

Ministry of Transport
Robert Mantague | Jamaica

Ministry of Public Works (IRE)
TBN | Indonesia

Koji Kaminaga
Japan Road Association | JAPAN

Mutlaq AlGhowari Company
Mutlaq AlGhowari | KSA

National Roads Authority
Paul Parchment | Cayman Islands

Parsons
Lester Yoshida (formerly with) | USA

REAAA
Hermanto Dardak | Malaysia

RoadBotics
Benjamin Schmidt | USA

Road Infrastructure Inc

Directors (2019-2021)
3M
Dan Hickey | USA

Armcostaco
Fernando Vilhena | Brazil

Avery Dennison
Patricia Calle | Colombia

Consu pav
George Way | USA

Consensus Systems Technologies
Robert Jaffe | USA

China Road Federation
Shing-Hau Jaw | Chinese Taipei

Dar Al-Handasah
Bashar Rihani | Lebanon

ETI
John Lee | USA

Japan Road Contractors Association
Yoshinori Nishida | Japan

Korea Expressway Corporation TBN | South Korea

Bureau of LA Streets California Adel Hagekhall | USA

Lindsay
Chris Sanders | USA

Ministry of Communications
Cedric Escalante | Mexico

Public Authority for Roads & Transportation
TBN | Kuwait

Ministry of Transport
Hathloul Al-Hathloul | Kingdom of Saudi Arabia

Ministry of Works, Municipalities and Urban Planning
Essam Khalaf | Bahrain

Ministry of Transport and Infrastructure TBN | Turkey

Pan Arab Consulting Engineers Shaikha Al Arfaj | Kuwait

Road & Transport Authority Dubai
Matha bin Adai | UAE

SABER
Shafik Nasser | UAE

Saudi Consulting Services Tarek Al-Shawaf | Saudi Arabia

Sumitomo Mitsui Construction Co Akio Kasuga | Japan

Swaro
Carl McCollum | Austria

TrafFix Devices
Brent Kulp | USA

Troxler Electronic Laboratories, Inc William F. Troxler, Jr. | USA

University of Alabama
Justice Smyth | USA

University of Nebraska
Ronald Faller | USA

Valley Slurry Seal Co
Jeffrey Reed | USA

International Road Federation

Swaro
Carl McCollum | Austria

TrafFix Devices
Brent Kulp | USA

Troxler Electronic Laboratories, Inc William F. Troxler, Jr. | USA

TTS Italia
Olga Landolfi | Italy

University of Central Florida
Mohammed Abdel-Aty | USA

University of Zagreb
Andelko Scukanec | Croatia

ZydeX Industries
Ajay Ranka | India

IREF Chairman
Kamil Kaloush
Arizona State University, USA
IRF COMMITTEES

The International Road Federation is a leading global advocate for the road sector, promoting best practices across all major policy areas. Through IRF Committees, knowledge-sharing programs, and capacity building initiatives, IRF members can reach out to a global audience of key governmental decision-makers and affect real change in road policies around the world. All members in good standing of IRF are eligible for induction in IRF regional & technical committees. For additional information, please contact advocacy@irf.global.

REGIONAL AFFAIRS

The mission of the regional committees are to identify the needs of regional members; provide guidance to staff in the development of regional events and advocacy initiatives; and provide a forum for intra- and inter-regional communications.

Africa
Chair: Magnus Quarshi, Institution of Engineers, Ghana

Latin America
Chair: Miguel Angel Salvia, Argentina Road Association, Argentina

Middle East & North Africa
Chair: Shafik Nasser, SABER Investment Co., UAE

Central Asia
Chair: Mammadov Saleh Arshad, Azeravtoyol, Azerbaijan

TECHNICAL COMMITTEES

The mission of the IRF Technical Committees is to foster a network of practitioners to share knowledge and contribute to the development of improved best practices.

Asset Management
Chair: Dr. Mohamad Sayyar, Agile Assets, USA

ITS
Chair: Dr. Robert Jaffe, ConSysTec, USA
Task Force “Road Adaptation to Autonomous Vehicles”
Task Force “ITS4Climate”

Sustainable Pavements
Chair: Prof. Kamil Kaloush, Arizona State University, USA

Procurement & Alternative Financing
Chair: Eric Cook, Senior PPP Advisor, USA

Road Safety
Chair: Chris Sanders, Lindsay Transportation Solutions, USA

Road User Charging
Chair: Nina Elter, EROAD, New Zealand
Steve Morello, Milestone Solutions, USA

“IRF Committees serve as a clearinghouse for international best practices”

C. Patrick Sankey
President & CEO
International Road Federation
A GLOBAL FOOTPRINT

More information: www.IRF.global/events

HEADQUARTERS

REGIONAL OPERATIONS

TRAINING INSTITUTES:
- WASHINGTON, DC USA
- DUBAI, UAE
- ZAGREB, CROATIA

COUNTRIES WITH IRF REPRESENTATION
CONFERENCE HIGHLIGHTS
“For road & transport authorities, @IRFhq’s R2T Conference is the place to learn best practices” @GHSAHQ

The Governors Highway Safety Association
REGIONAL CONFERENCES

DELIVERING SAFE ROADS BY DESIGN FOR AFRICA


The end of the first United Nations Decade of Action for Road Safety 2011-2020 marks the start of new forms of international collaboration to avert the continuing and growing epidemic of road traffic injuries, responsible for 1,350,000 fatalities per year.

In February 2020, Ministers from over 100 countries reaffirmed the objective to cut road fatalities by at least 50% from 2020 to 2030, in line with the UN Sustainable Development Goals. On August 31, 2020, the UN General Assembly reaffirmed this goal in a resolution which further calls on countries to “ensure the safety and protection of all road users through safer road infrastructure by taking into account the needs of motorized and non-motorized transport, especially on the highest-risk roads, through a combination of proper planning and safety assessment, including through identification of crash-prone areas, design, building and maintenance of roads, signal systems and other infrastructure”.

Key to the successful implementation of these commitments is the acknowledgment that no level of death or serious injury is acceptable. “Vision Zero” principles, which take human fallibility and vulnerability into account, must therefore guide the design and management of road networks.

In delivering this first “Vision Zero” event, IRF has reaffirmed that it stands behind the goals of the second UN Decade of Action. Every day, IRF member organizations affect real change by designing and installing solutions - from innovative guardrail systems to safety enforcement cameras - that help to protect road users from death and serious injury.

PREPARING THE CARIBBEAN FOR A DECADE OF CHANGE

Nine editions after its launch in Jamaica, IRF Caribbean Regional Congresses continue to offer a unique gathering point for transportation decision-makers, industry professionals, and regional institutions.

This year’s edition on October 28-30 brought together 6 Ministers of Transport as well as numerous subject matter specialists from the IRF and the Caribbean Development Bank. Topics covered during the event included “Accelerating Investments in Caribbean Roads & Transport Infrastructure”, “Delivering Climate Resilient Transportation Infrastructure & Services” as well as various panels exploring road safety improvements in the Caribbean.

Opening the event, Mr. C. Patrick Sankey, President & CEO of the IRF noted that “for the foreseeable future, roads will remain the Caribbean’s most important social network, linking communities and enabling economic visions to become reality. As with most regions around the world, the Caribbean faces a major infrastructure investment gap that is adversely impacting its prospects for growth. This Congress represents an opportunity to share the wealth of experience accumulated by the region’s different agencies in procuring safe, sustainable and resilient road infrastructure and mobility services”.

In delivering this first “Vision Zero” event, IRF has reaffirmed that it stands behind the goals of the second UN Decade of Action. Every day, IRF member organizations affect real change by designing and installing solutions - from innovative guardrail systems to safety enforcement cameras - that help to protect road users from death and serious injury.
The 2020 edition of the IRF Global “Roads to Tomorrow” (R2T) Conference was held November 17-20 in a live and interactive format, bringing together 60 speakers, and more than 500 delegates from 52 countries to address the future of road mobility.

Notable speakers at the R2T Conference included the Michigan DOT Director Mr. Paul Ajegba, the President of the Turin Mobility Lab, Mrs. Rossella Panero, the Director of Public Works of the City of Los Angeles, Mr. Adel Hagekhalil and Renovo Co-founder and CEO, Mr. Chris Heiser.

Following highly successful editions held in Las Vegas in 2018 and 2019, R2T continues to push the boundaries of 21st century roads & mobility by offering a unique international meeting point where leading industry innovators, researchers, and stakeholders can acquire essential engineering and business insights, and help build tomorrow’s transportation infrastructure today.

According to IRF President & CEO, C. Patrick Sankey “With rising expectations placed on the delivery of sustainable and efficient transport infrastructure, IRF reaffirms its mission to offer government agencies and road professionals access to key knowledge resources and innovations. A special emphasis was placed this year on innovations in energy efficient road design, managing transportation assets using GIS & AI, advanced mobility pricing and equipping roads for the arrival of shared and connected mobility services”.

“This Conference also offered IRF Members and other road stakeholders a valuable opportunity to reflect on the range of impacts triggered by the COVID-19 pandemic, and how our sector has responded to ensure continuity of operations and investments”, Sankey added.

According to Magid Elabyad, Vice President for International Programs and chief architect of the conference: “For everyone in our sector R2T remains the place to learn and network with professionals and decision makers on a truly global scale. We thank our sponsors and supporters for reaffirming their commitment to R2T and to the IRF. We have procured an interactive virtual meeting platform that will allow attendees from anywhere in the world to visit the exhibits, and sponsors to connect individually with attendees.\"
IRF and the Dubai Roads & Transport Authority (RTA) are convening global surface transportation specialists to the 18th IRF World Meeting & Exhibition on November 7-10, 2021.

Held in Dubai, one of the world’s iconic cities and a hub of transport innovation, the IRF World Meeting is a global summit & technology showcase that is both uniquely relevant to a wide cross-section of road mobility stakeholders, and focused on delivering solutions to the world’s pressing mobility questions.

According to H.E. Abdullah Al-Mogbel, Chairman of the IRF, “IRF World Meetings are a privileged opportunity to set strategic orientations for the sector. I call upon the global transport community to fully engage with the IRF in delivering this landmark event”.

The 18th IRF World Meeting & Exhibition is articulated around 6 major topics:

- Innovations in Transport Engineering & Financing
- Preparing Roads for Electronic & Autonomous Mobility
- Safe & Sustainable by Design
- Rethinking Urban Mobility
- Maximizing Existing Road Assets
- Roads & Inclusive Societies

World Meeting host, the Dubai Roads & Transport Authority (RTA) has invested over USD30 billion on roads and transportation infrastructure since its establishment in 2005. Dubai and the UAE’s highways have consistently been rated the best in the world, according to the World Economic Forum’s Global Competitiveness Report.

“Dubai is the undisputed ‘City of the Future’ in the Middle East. At the heart of this story lies RTA’s efforts to foster a culture of excellence, quality, and innovation supported by world-class research” according to Eng. Maitha Bin Adai, CEO of the Traffic and Roads Agency.

“With Dubai’s goal of achieving 25 percent of all transport autonomous by 2030, the IRF World Meeting and Exhibition will be conducive in bringing new learnings to the region as well as open avenues for partnerships and cooperation.” Notes H.E. Eng. Mattar Al Tayer Director General of the Roads & Transport Authority Chairman of the Board of Executive Directors.

For more information, please visit www.IRF2021.global.
18th IRF World Meeting & Exhibition

A Global Summit & Technology Showcase

Dubai, UAE
November 7-10, 2021

CALL FOR ABSTRACTS NOW OPEN

www.IRF2021.global
THE INDUSTRY’S MOST TRUSTED BRAND IN EXECUTIVE EDUCATION
“It was my first experience of the virtual IRF training sessions and I can highly recommend them.”

Dave Dollan, WSP
As the world continues to deal with the long-term implications of the COVID-19 pandemic, the International Road Federation has heeded the call by the world’s road professionals for more online training resources.

Starting in May 2020, IRF has moved some of its most popular workshops to a new on-line training platform and began adding specialized courses, made possible through the virtual delivery format. The first course “Making Roads Safe for All Users” ran May 4 – 22, 2020 bringing together participants from countries as diverse as Ethiopia, South Africa, Canada, Pakistan and the Seychelles. It addressed how to apply the Safe Systems philosophy to road design & management, with a focus on safer roadsides, workzone safety and vulnerable road user protection. During the final course modules, participants were taken on a virtual inspection of road projects and encouraged to identify traffic safety risks utilizing the knowledge they had acquired.

Since then, IRF has quickly ramped up its online portfolio to include an extensive offering of live road construction and management classes, ranging from pavement design processes to PPPs, and from road tolling strategies to intelligent transport systems. Each course is typically delivered in two-hour sessions stretching over several weeks with homework assignments and group projects in addition.

IRF’s suite of Online Training is built around the following user value:

- Access IRF’s unique curriculum and lectures developed by world-class specialists
- Accelerated learning processes: get up to speed and gain new insights in less time and with no travel constraints
- Full access to learning materials and session recordings
- Small classrooms & scheduled One-on-One sessions with instructors
- Self-paced options available
- Interactive group projects and case studies

In practice, delegates typically learn 30-40% faster when the course is delivered online as instructors prioritize core content. The course recordings are available for delegates who may have missed a module or prefer self-paced options. Finally, online courses typically allow IRF to invite subject-matter experts to cover a single module, whom it would otherwise be cost-prohibitive to convene to a traditional workshop.

According to Magid Elabyad, Vice President for International Programs, “IRF’s suite of online training is designed with the same care and rigorous standards that are hallmarks of IRF’s executive education programs. Additional virtual features are leveraged wherever possible, including WhatsApp groups to facilitate informal discussions. As with traditional workshops, the specific learning outcomes are communicated ahead of each course, and reviewed again with delegates during the first session. Great care is taken to ensure the courses enhances practical takeaways than can be directly applied by delegates in their workplaces.”
PROFESSIONAL CREDENTIALS

PPP Credential

IRF has joined an elite group of continuing education providers accredited to administer Public-Private Partnership proficiency credentials to aspiring road & transportation professionals. With this accreditation, professionals taking the APMG approved IRF course on PPPs may go on to apply for a Public-Private Partnerships Professional Certification (CP3P) established by APMG, a global examination institute.

The CP3P program, whose aim is to enhance PPP performance globally, is recognized by leading institutions such as the World Bank Group, the Asian Development Bank, the European Bank for Reconstruction and Development, the Inter-American Development Bank, and the Islamic Development Bank.

IRF Road Safety Credentials

Professionals seeking recognition for their road safety skills now have access to two global credentials administered by the International Road Federation:

- “Safe Roads by Design” Professional Credential - Practitioner Level
- “Road Safety Audit Team Leader” Professional Credential

Candidates are required submit a comprehensive application presenting their professional track record, and take an online Qualifying Knowledge Exam demonstrating their understanding of safe road design and management practices. For applicants going on to the Road Safety Team Leader Credential Program, applicants must also supply details of the projects they have audited in order to complete the program.
# 2020 Calendar of Events

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>IRF Road Scholar Program</td>
<td>January 8-16, 2020</td>
<td>Washington, DC USA</td>
</tr>
<tr>
<td>Next Generation Traffic Management</td>
<td>February 12, 2020</td>
<td>Dubai, UAE</td>
</tr>
<tr>
<td>Managing Road Infrastructure Assets</td>
<td>February 17-21, 2020</td>
<td>Porto, Portugal</td>
</tr>
<tr>
<td>Safe Roads By Design: Making Roads Safe for all Users</td>
<td>May 4-22, 2020</td>
<td></td>
</tr>
<tr>
<td>Project Finance Foundations (8 Hours)</td>
<td>May 12 - June 4, 2020</td>
<td></td>
</tr>
<tr>
<td>Building Climate Resilience into Roads &amp; Transport Infra.</td>
<td>May 19 - June 11, 2020</td>
<td></td>
</tr>
<tr>
<td>Road Infrastructure Asset Management (16 Hours)</td>
<td>June 1 - June 19, 2020</td>
<td></td>
</tr>
<tr>
<td>Advances in Pavement Design, Analysis and Construction</td>
<td>June 9 - July 2, 2020</td>
<td></td>
</tr>
<tr>
<td>Road Safety Audits: From Concept to Results (16 Hours)</td>
<td>June 15 - June 30, 2020</td>
<td></td>
</tr>
<tr>
<td>Certified PPP Professional Foundation (20 Hours)</td>
<td>June 22 - June 26, 2020</td>
<td></td>
</tr>
<tr>
<td>Fundamentals of Road User Charging (8 Hours)</td>
<td>June 25 - June 30, 2020</td>
<td></td>
</tr>
<tr>
<td>Road Infrastructure Asset Management - Kenya National Highways Authority (20 Hours)</td>
<td>July 6 - 23, 2020</td>
<td></td>
</tr>
<tr>
<td>Fundamentals of ITS &amp; Adaptive Traffic Management (16 Hours)</td>
<td>July 6-16, 2020</td>
<td></td>
</tr>
<tr>
<td>Certified PPP Professional (CP3P) Foundation – Government of Zambia (20 Hours)</td>
<td>July 10 - 17, 2020</td>
<td></td>
</tr>
<tr>
<td>Bridge Management &amp; Inspection (16 Hours)</td>
<td>July 13-31, 2020</td>
<td></td>
</tr>
<tr>
<td>Safe Roads By Design: Making Roads Safe for all Users (20 Hours)</td>
<td>July 13 - 31, 2020</td>
<td></td>
</tr>
<tr>
<td>Road Infrastructure Asset Management (16 Hours)</td>
<td>August 25 – Sep 17, 2020</td>
<td></td>
</tr>
<tr>
<td>Traffic Crash Investigation &amp; Analysis From Diagnosis to Prevention (8 Hours)</td>
<td>August 31 - Sep 3, 2020</td>
<td></td>
</tr>
<tr>
<td>Safe Roads By Design: Making Roads Safe for all Users (20 Hours)</td>
<td>Sep 14 - October 2, 2020</td>
<td></td>
</tr>
<tr>
<td>Managing Road Tunnel Safety (8 Hours)</td>
<td>September 16 - 22, 2020</td>
<td></td>
</tr>
<tr>
<td>Pavement Management (16 Hours)</td>
<td>Sep 28 - October 23, 2020</td>
<td></td>
</tr>
<tr>
<td>Procurement &amp; Contract Mngmt for Transportation Infrastructure Projects (16 Hours)</td>
<td>Sep 28 - October 8, 2020</td>
<td></td>
</tr>
<tr>
<td>Performance-based Contracts: Management &amp; IMP (16 Hours)</td>
<td>October 6 - 29, 2020</td>
<td></td>
</tr>
<tr>
<td>Fundamentals of Automated Speed Enforcement (16 Hours)</td>
<td>October 14 - 22, 2020</td>
<td></td>
</tr>
<tr>
<td>9th Caribbean Virtual Congress &amp; Exhibition</td>
<td>October 26 - 30, 2020</td>
<td></td>
</tr>
<tr>
<td>Traffic Forecasting &amp; Simulation (8 Hours)</td>
<td>November 2 - 5, 2020</td>
<td></td>
</tr>
<tr>
<td>Road Safety Audits: From Concept to Results (16 Hours)</td>
<td>November 2 - 12, 2020</td>
<td></td>
</tr>
<tr>
<td>Building Climate Resilience into Roads &amp; Transport Infra.</td>
<td>November 2 - 12, 2020</td>
<td></td>
</tr>
<tr>
<td>Procurement &amp; Contract Mngmt for Transportation Infra. Projects (16 Hours)</td>
<td>November 2 - 17, 2020</td>
<td></td>
</tr>
<tr>
<td>Project Finance and PPPs (16 Hours)</td>
<td>November 2 - 17, 2020</td>
<td></td>
</tr>
<tr>
<td>IRF Global R2T Virtual Conference</td>
<td>Nov 17 – 20, 2020</td>
<td></td>
</tr>
<tr>
<td>Sustainable Transportation Infrastructure Materials (16 Hours)</td>
<td>Nov 24 - Dec 17, 2020</td>
<td></td>
</tr>
<tr>
<td>Advanced Financial Management in Road Projects (16 Hours)</td>
<td>Nov 30 - Dec 15, 2020</td>
<td></td>
</tr>
<tr>
<td>Road Infrastructure Asset Management (16 Hours)</td>
<td>Nov 30 - Dec 11, 2020</td>
<td></td>
</tr>
<tr>
<td>Vision Zero for Africa Virtual Conference</td>
<td>Dec 1 – 3, 2020</td>
<td></td>
</tr>
<tr>
<td>Safe Roads By Design: Making Roads Safe for all Users (20 Hours)</td>
<td>December 7 - 18, 2020</td>
<td></td>
</tr>
<tr>
<td>IRF Asia-Pacific Virtual Congress</td>
<td>December 9 – 11, 2020</td>
<td></td>
</tr>
<tr>
<td>Managing Urban Mobility (8 Hours)</td>
<td>December 8-11, 2020</td>
<td></td>
</tr>
</tbody>
</table>
Course Testimonials

Fundamentals of Automated Speed Enforcement | October 14-22, 2020

"I would like to thank you again for the opportunity to attend the "Fundamentals of Automated Speed Enforcement" course which I found very well structured, with good examples, and useful"

Tamara Mihaljcic, Consultant, The World Bank

Traffic Forecasting & Simulation | November 2-5, 2020

"A very informative, highly technical and relevant course. I really want to thank all of you on my behalf as well as on behalf of RTA"

Eng. Nadeem Siddiqui, Chief Specialist, Traffic Department, Dubai RTA

Road Safety Audits: From Concept to Results | November 2-12, 2020

"I received an in-depth understanding of the issues related to road safety audits through globally recognized experts with the necessary knowledge and experience to teach the course. I am looking forward to participating in future IRF trainings and conferences."

Youb Raj Bhatta, Nepal Road Safety NGO
THE WORLD'S LEADING ROAD ADVOCATE
“We are so grateful to the IRF for recognizing that sustainable pavement preservation techniques play a huge role globally in protecting our planet.”

Jeff Roberts
Senior Vice President, VSS International, Inc.
IRF has released a new White Paper which sets out the high-level principles required to achieve accuracy and integrity of Automated Speed Enforcement (ASE) systems.

Measures to cut driving speed are widely recognized as one of the most effective pathways to immediate and sustained road traffic injury reductions. Automated Speed Enforcement systems have progressively become a cornerstone of national road safety strategies in many parts of the world" notes Philip Wijers, Chair of the IRF Subcommittee on Enforcement, “but they rely on a foundation of trust in the rationale, goals and tools that underpin these strategies”.

ASE systems produce a record of the speed of a motor vehicle when the driver has exceeded the maximum posted speed limit. For an ASE system to be effective and widely accepted, including in a court of law, it is of paramount importance that all readings from speed enforcement devices are accurate, and that this accuracy can be proven by the operator. If an ASE system is improperly installed or maintained in a way that does not comply with the specified requirements, the accuracy of the readings may diverge sufficiently from the installation parameters to create a ‘reasonable doubt’.

Conversely, if an ASE system is found to be inaccurate during or after a period of uncalibrated enforcement operation, the safety benefit and credibility of the ASE treatment as a whole is at risk. A reduction in the trust in the accuracy of the ASE systems will result in a loss of public support and confidence in the enforcement authority, and could also result in reparations that include the repayment of fines and penalties incorrectly issued as a result of the defect. Finally, the removal of an improperly calibrated speed enforcement system will create a period of increased risk to the public.
FUTURE OF ROAD PRICING

Charging road users for access to transportation infrastructure is an age-old concept that is currently experiencing a renaissance thanks to pressing funding concerns (arising from fuel tax revenue loss) and the concurrent emergence of a wider range of technology options. However, the underlying principles of fairness, contributing to road quality, internalizing external costs, and revenue creation remain some of the cornerstones of current and future road pricing schemes, according to a new White Paper released by the International Road Federation.

In the United States, federal, state and local jurisdictions continue to rely on fuel taxes to fund upkeep and new road construction investments. A combination of greater fuel efficiency in the vehicle fleet and higher road projects costs observed in the last two decades has had a significant and detrimental impact on the investment capacity of these jurisdictions. Many now recognize the need to address this challenge through fixes which frequently include road pricing as a major policy alternative.

Where tolling programs already exist, these have prepared road users to the idea of paying for the upkeep of a high-quality network (and in the case of managed lanes, being able to make a trade-off between journey time and cost), while providing operators with the capabilities to administer wide-scale systems.

The societal pressures we know today – increased population and economic activity around geographic hubs – will all worsen over the next decade, placing additional stress on transportation infrastructure and increasing commuting times, absent demand management policies. The need to charge according to a growing number of parameters (such as location, destination and number of occupants) will thus become even more appealing to policy-makers.

Road Adaptation for AVs

Automated Vehicles (AVs) are a game-changing evolution in personal mobility, however, design guidelines for highway and traffic engineers remain silent on the question. On account of their long lifespan, current and future road infrastructure assets will increasingly need to factor changing needs to support the future deployment of AVs.

IRF is establishing a new task force to fill this void by producing non-binding, globally applicable recommendations on adapting road infrastructure design, construction and operations to the new needs of AVs.

The task force's scope includes measures to enhance the quality and uniformity of traffic control devices, intelligent transportation system devices, digital navigation maps, as well as road structures. Where application, potential agency actions for readiness are considered.

Although the task force primarily concerns itself with fully Automated Vehicles (Level 5), shorter term measures to support Advanced Driver Assistance Systems may also be considered.
SAFETY IN ROAD WORK ZONES

IRF has asked that road authorities accept the responsibility to set stringent safety requirements for contractors involved in maintenance works on roads open to traffic, and independently verify that these requirements are met.

Work zones represent a very serious safety concern for motorists, vulnerable road users and as well as for workers who build, repair, and maintain the roads, bridges, and highways. Based on figures available, IRF estimates that at the global level, hundreds of thousands of injuries and thousands of fatalities occur every year in work zones. International Financing Institutions are also increasingly recognizing the increased risks posed by temporary road works.

According to the IRF Guidelines, road authorities must accept the responsibility to set stringent safety requirements for contractors involved in maintenance works on roads open to traffic, and independently verify that these requirements are met.

In particular, they must ensure that the required traffic control devices are installed properly and maintained during the life of the work zone. Typically designs of traffic control plans and devices are described in Federal documents often referred to as the “Manual of Uniform Traffic Control Devices” (MUTCD). These plans may also be called a “Guide to Temporary Traffic Management” (AGTTM), “Temporary Traffic Management Plans (TTM)” or a “Work Zone Traffic Management Guide.”

Where road authorities decide to use non-proprietary, state funded systems, these products must be properly tested to the current US or European testing criteria. Experience has shown that that many of these low initial priced systems either have cut corners in testing, or in the manufacturing process when they are allowed to be locally produced with limited quality control.

Finally, road authorities must enlist the use of qualified Road Safety Auditors through all three Stages of the Construction Phase, Work Zone, Construction and Pre-Opening. Qualified Road Safety Auditors will help to ensure that contractors do not use replace properly tested and specified passive safety devices with products that may or may not provide adequate protection for motorists, pedestrians as well as road workers.

Leveraging AI for Safer Roads

Throughout 2020, the IRF conducted a series of open forums dedicated to exploring the role of advanced analytics powered by Artificial Intelligence in identifying road risk before they cause serious and fatal road traffic crashes.

A series of webinars explored the safety benefits of video-analytics, which involve processing hours of traffic camera footage to understand real-world traffic patterns and near-miss collisions, as well new opportunities to eradicate dangerous driving patterns, such as distracted driving, by deploying the next generation of traffic cameras.

IRF also ran a free online master class on predicting road injury risk based on georeferenced roadway characteristics, teaching road agencies how to combine and datamine their asset information in order to produce effective “heat maps” of road risk.

When it comes to evaluating road injury risk, AI algorithms will probably never replace the keen human eye, but they can supplement human-led analysis and provide valuable support to the work of traffic engineers in the field, in many cases by putting to use road data which they already have access to.
SHARING KNOWLEDGE ACROSS BORDERS

IRF WEBINARS

IRF e-Learning Webinars offer an excellent overview of the international state of the art and regulatory environment across a range of road and transportation topics. They also provide an introduction to the discussion topics and coursework covered in the traditional courses. IRF Members in good standing have full access to the library of 80+ webinars. Other organizations may purchase single or multi-user licenses to view these titles.

Please visit www.IRF.global/mywebinar

IRF EXAMINER

The IRF Examiner [ISSN 2411-3867 (Print), ISSN 2411-3875 (Online)] is a freely available periodical journal published by the International Road Federation featuring peer-reviewed technical papers by leading industry professionals.

The IRF Examiner directly supports the IRF’s stated mission of creating a global marketplace of knowledge in support of informed policies and effective programs.

Please visit www.IRF.global/examiner
IRF AWARDS: RECOGNIZING EXCELLENCE

2020 IRF WOMAN OF THE YEAR

H.E. Cora van Nieuwenhuizen
Minister of Infrastructure & Water Management, the Netherlands

Minister Van Nieuwenhuizen is being recognized for her vision & leadership in achieving one of the best-run and safest road networks worldwide, characterized by efforts to promote innovation, consensus-building, and the embracing of strategic initiatives. These include preparing for mobility pricing and the arrival of autonomous vehicles, where the Netherlands has consistently been ranked among the best prepared countries.

According to IRF Chairman Eng. Abdullah A. Al-Mogbel, “As a trading nation, the Dutch government has long recognized the value of its transportation assets. This accolade crowns an exceptional policy-maker who has spearheaded programs that will fully ready the Netherlands for the challenges of new mobility”.

Acknowledging the notification of the Award, Minister Van Nieuwenhuizen stated “This award recognizes our joint efforts in the Netherlands to make international road mobility safer and more sustainable. To achieve our ambition of zero road deaths by 2050, cooperation and learning from each other will be key. Vehicles that collect data, advanced driver-assistance systems, connected and automated driving can also help make our traffic safer. I am proud that the Netherlands is seen as a frontrunner in smart mobility, and that the Dutch infrastructure is one of the best-prepared for the introduction of automated vehicles. Thank you for this prestigious award. I am very happy to be able to contribute to our joint efforts.”

2020 IRF Woman of the Year

Established in 1951, IRF’s Woman (or Man) of the Year award recognizes eminent public, private and education sector professionals with an outstanding track record of leadership and commitment to the road transport industry. Over the years, the award has distinguished some of the world’s most influential transport leaders for their work in the field of advocacy, policy, research and educational programs in support of better, safer, and more sustainable road networks globally.

Find a Way Award

IRF has presented its annual “Find a Way” Global Road Safety Award to the South African National Roads Agency SOC Ltd (SANRAL).

The IRF “Find a Way” Award recognizes outstanding commitment to safer roads by national, regional, or city government and is presented every year as part of IRF’s commitment to the UN Decade of Action for Road Safety.

This year’s Award gives special attention to efforts undertaken by public agencies to mainstream road safety considerations in the construction and rehabilitation of their road networks. SANRAL has led the way in this field through safe engineering practices and stakeholder engagement programs.

According to SANRAL CEO, Skhumbuzo Macozoma, CEO “This Award bears testament to our relentless efforts to reduce fatal and serious injury crashes not only on our national road network, but in the whole of South Africa and the Southern African Development Community. This award is specifically gratifying given our road safety journey, and will inspire us to find more ways to improve road safety.”
GLOBAL ROAD ACHIEVEMENT AWARDS (GRAA)

Instituted in 2000, the Awards have distinguished more than 185 programs, projects and products from around the world.

This year, the IRF honors 11 projects from around the world, each leading the way in innovation across major road & highway disciplines. The selection was made by an international panel of senior road development specialists.

“We are very grateful to be recognized globally by IRF and will keep working towards sustainable roadways in Taiwan”.

Mr. Cheng-Chang Hsu
Director General of Directorate General of Highways, MOTC

2020 GRAA WINNERS

ASSET PRESERVATION & MAINTENANCE MANAGEMENT
Pacific Coast Highway - South Los Angeles, CA by VSS International, Inc.

CONSTRUCTION METHODOLOGY
Largest Metal-Buried Bridge by UAE Ministry of Energy & Infrastructure

DESIGN

ENVIRONMENTAL MITIGATION
Toowoomba Second Range Crossing by Nexus Delivery

PROGRAM MANAGEMENT
Integrated Road Investment Program-iRoad by Sri Lanka Road Development Authority

PROJECT FINANCE & ECONOMICS
Smart LED Lighting Retrofit for Abu Dhabi Island Streets by Abu Dhabi Municipality

QUALITY MANAGEMENT
Jinan-Qingdao Expressway Reconstruction and Extension Project by Shandong Hi-speed Co., Ltd

RESEARCH
Gonghe-Yushu Expressway by State Key Laboratory of Road Engineering Safety and Health in Cold and High-Altitude Regions & CCCC, First Highway Consultant Co. Ltd.

SAFETY
Integrated Road Safety Management System Development Project by Thailand Department of Rural Roads

TRAFFIC MANAGEMENT & ITS
AI for Traffic Safety by Hazen.ai

URBAN PLANNING & MOBILITY
Richmond-San Rafael Bridge Bike/Pedestrian Walkway by Lindsay Transportation Solutions
PREPARING THE NEXT GENERATION
“I volunteer so others may have the same experience.”

Taylor LOCHRANE
IRF Fellow-Class of 2010, University of Central Florida
Current Position: CARMA Technical Program Manager; U.S. DOT – FHWA
AN OPPORTUNITY TO LEARN FROM SUCCESSFUL TRANSPORTATION LEADERS

After looking into the IRF mission and the Road Scholar Program, I found this unique experience would fit perfectly in my resume and align with my career goal to help foster a safer and more sustainable transportation system by developing new data architectures.

Strengthening leadership skills is a fundamental part of any career development, and I have always been involved in leadership positions within student chapters (ITE, WTS) and conference student events (NaTMEC). The Road Scholar Program was an opportunity for me to learn those skills and keys to success from successful transportation leaders.

I was notified of the acceptance into the program in late November and honored to be selected by the Louis Berger Foundation to be their Named IRF Fellow for the Class of 2020. So, I became one of fourteen selected students to attend the IRF Road Scholar Program on January 8-16, 2020 in Washington D.C. During the Road Scholar Program, I had the opportunity to meet Mrs. Sofia Berger, Senior Vice President of WSP, and learn of her hard work and experiences as a female leader in the transportation industry.

The Program was an exceptional experience for me. Through this program, I visited multiple prestigious international organizations and transportation research centers and laboratories. Our first field trip was to the World Bank Group, a financial and knowledge strengthening institution supporting developing countries in addressing their education, health, and environmental challenges.

Our second field trip was a tour of the 3M Innovation Center and its Exhibition Hall. 3M has been long partnered with IRF to improve road safety through science and technology. The most exciting part of the tour was learning about their “technology platforms” and how they leverage the existing technical capabilities from other fields into transportation and reuse the technology, such as adhesives.

The class was taken on a whole day tour to the laboratories housed at the Turner-Fairbank Highway Research Center. The tour was organized and guided by Dr. Taylor Lochrane and Dr. Pavle Boujanovic. Dr. Lochrane is the CARMA Technical Program Manager at Federal Highway Administration (FHWA), also the chairman of the IRF Fellows Alumni Association (IFAAA). During this tour, we visited the infrastructure, operations, and safety laboratories.

Our last field trip was to the National Transportation Safety Board (NTSB), a Federal agency that investigates and reports on aviation, highway, marine, railroad, and pipeline crashes. Their extensive laboratories, from material and safety to vehicle recording and performance, were equipped with advanced types of machinery to find the real reason behind a vehicle failure in an accident.

One of the most pleasant experiences at the IRF Road Scholar Program was meeting other students and spending nine days with first strangers and then friends. Once I received the acceptance email, I figured out that other students were also studying roadway related subjects at the graduate level, though from diverse backgrounds and home countries.

Honestly, I could have guessed that I was about to learn a lot before attending this program. Though, I never expected it would be such an enjoyable and memorable experience in my professional life. I am so excited to be part of this family and looking forward to being more and more involved.

Farinoush Sharifi, Ph.D. student
Texas A&M University
NAMED FELLOWSHIP GRANTS

Ahmed J AlBughdadi
Iowa State University
Palestine

Denise Capasso da Silva
Arizona State University
Brazil

Omer Eljairi
California State University Long Beach
Libya

Norma Gonzalez Del Valle
The University of Texas at Tyler
Mexico

Angela Haddad
American University of Beirut
Lebanon

Jolina Karam
Arizona State University
Lebanon

Kyosuke Kato
University of Florida
Japan

Shinya Maehara
University of Florida
Japan

Satoshi Naito
Georgetown University
Japan

Hossein Noorvand
Arizona State University
Iran

Brandon Rogers
Texas Southern University
USA

Liliana Salas
Arizona State University
Colombia

Farinoush Sharifi
Texas A&M Transportation Institute
Iran
FUTURE FUND DONORS

INDIVIDUALS

Mohammad Hossain
Serdar Jepbarov
Baig Abdullah Al Muhit
Laxmikanth Premkumar
Finch Troxler
Masato Mastumoto
Kiichiro Nakamura
Peijia Tang
Rong Luo
Yu-Min Su
Yuya Suzuki

Taehoon Lim
Muhammad Iqbal
Md Mizanur Rahman
Michelle Mekker
Yu Chen
Wonho Suh
Long Bui
Yoshihiro Toki
Leslie Mills
Jose Medina
Ryan Stevens

Krzysztof Waszczuk
Omer Eljairi
Imen Zaabar
Yosuke Ishihara
Kiyoshi Watariguchi
Juerg Sparmann
Yasumasa Torii
Nevena Vajdic
Togarepi Chitakara
Edmond Alite
Árpád Siposs
Mario Leiderman
FUTURE FUND DONORS
CORPORATIONS

3M  AB  AECOM  AEM  AgileAssets  Alberta  Al-Ajmi

Bechtel  Booz Allen  Caterpillar  CDMSmith  Echterhoff  HNTB  ICA

Ingersoll Rand  Japan Road Association  Jorgensen  Korea Expressway Corporation  Louis Berger

Nishimatsu Construction  Ministry of Transportation  Parsons  Quintana  Sumitomo Mitsu Construction Co., Ltd.

Swarco  Toyota  Trinity International  Macropaver  Vidrifa
PARTNER ORGANIZATIONS

AMEND

Argentina Road Association

Association of Chilean Roads and Transport

Association of Equipment Manufacturers

Association of Southern African National Road Agencies

AUSEP

BBARS Bulgaria

Chartered Institution of Highways & Transportation

China Highway & Transportation Society

Colombian Association of Concrete Products

Construction Industry Development Board Malaysia

CORSAN

Foundation for Education and Training on Tunneling and Underground Space Use

Global Road Safety Partnership

Governors Highway Safety Association

Indonesian Transportation Society

Institute for Mobility & Transport

International Road Transport Union

Intertraffic

TTS Italia

ITS Africa

ITS America

ITS Japan

Italian ITS Association
INSTITUTIONAL PARTNERS

MULTILATERAL INSTITUTIONS

FEDERAL AND STATE AGENCIES

Azeravtoyol (Azerbaijan)
Malaysian Highway Authority
Road Infrastructure Agency (Bulgaria)
Ministry of Communications and Transport (Mexico)
Ministry of Public Infrastructure (Guyana)
Ministry of Works, Municipalities Affairs and Urban Planning (Bahrain)
Roads & Transport Authority (UAE)
Croatia Roads
Government of Malaysia
Ministry of Transport and Infrastructure (Turkey)
Ministry of Transport and Mining (Jamaica)
Public Works Department (Malaysia)
Sharjah RTA
Ministry of Energy & Infrastructure (UAE)
Ministry of Public Works (Kuwait)
National Roads Agency (South Africa)
Rijkswaterstaat, Ministry of Infrastructure and the Environment (Netherlands)
A SPECIAL THANKS TO OUR SPONSORS