

**GTB Glare and Visibility Forum**Monday, 22 October 2018 (Prior to GRE-80<sup>th</sup> session)

09:30 – 17:30

Palais des Nations, Geneva - Room IX

**FINAL AGENDA**

As proposed during the 79<sup>th</sup> GRE session, GTB is pleased to organise this one-day forum to provide the contracting parties and GRE experts with an opportunity to hear the conclusions of the Research Institutes, of Asia, Europe and the USA, focussed on the important issue of Glare and Visibility.

This forum will focus on the scientific issues and will not include presentations from representatives of industry.

The forum was organized by Dr. Rainer Neumann and Mr. Gert Langhammer, chair and secretary of the GTB Safety & Visual Performance (SVP) Working Group respectively. The forum will be moderated by Dr. Bart Terburg, GTB Vice-President.

09:30	Introduction to the Forum	
09:40	Elderly People, General Visibility Versus Glare and Headlamp Cleaning in Automotive lighting	<b>Jonas Kobbert, M.Sc.</b> , Doctoral Student <i>TU Darmstadt, Germany</i>
	<i>Mr. Kobbert is a doctoral student at the Laboratory of Lighting Technology in Darmstadt. He received his B.Sc. and M.Sc. in Physics at the Technical University in Darmstadt (2009-2014). Since 2014 his areas of research have included, detection and identification in real life driving, analysis of driver's gaze and fixation behaviour, pupillary movement under glare, and headlamp light distribution optimization. He is currently completing his PhD Thesis, titled "Optimization of Automotive Light Distributions for Different Real Life Traffic Situations" (awaiting approval in December 2018).</i>	
10:10	Recent study on benefits of ADB	<b>Prof. Dr. Dirk Meyer</b> <i>THM Gießen, Germany</i>
	<i>Dr. Meyer is the Study Dean and Professor for Vehicle Body Engineering, Propulsion Systems and Vehicle Lightweight technologies at TH Mittelhessen University of Applied Science in Giessen, Germany since 2012. Dr. Meyer holds a B.Sc. in Automotive Engineering from the University of applied Science in Cologne, Germany, a M.Sc. in Automotive Systems Engineering from Loughborough University in Loughborough, UK, and a PhD in Mechanical Engineering from the University of Duisburg-Essen, Germany. Prior to his position at TH Mittelhessen he held positions at Ford Motor Company in Cologne, Germany, positions in exterior lighting at Visteon Lighting in Cologne, Germany and most recently at Mercury-Brunswick Marine in Verviers, Belgium.</i>	
10:40	Visibility under adverse weather condition in automotive lighting	<b>Prof. Chan-Su Lee</b> <i>Yeungnam University, Republic of Korea</i>
	<i>Dr. Lee is a professor in the department of Electronics Engineering and the director of LED-IT Fusion Technology Research Center (LIFTRC) at Yeungnam University in Korea. He holds a Master of Science from KAIST (Korea Advanced Institute of Science and Technology) and he received his Ph.D. from Rutgers, The State University of New Jersey, USA. His research interests include visibility analysis and human visual system, human factors for automotive lighting and general lighting, and machine learning and artificial intelligence in computer vision.</i>	
11:10	Coffee Break (40 Minutes)	

11:50	Importance of visibility improvements for safety in automotive lighting	<b>Dr. Michael Flannagan</b> <i>UMTRI, Ann Arbor, MI, USA</i>
	<i>Mike Flannagan is a Research Associate Professor at the University of Michigan Transportation Research Institute (UMTRI). He has been at UMTRI since receiving his Ph.D. from the University of Michigan in 1989. Most of his research involves a combination of vision science and analysis of crash data to address issues in automotive safety, especially in driver visual performance. Much of his work has been on how driver vision can be improved by innovations in traditional vehicle systems, such as adaptive headlamps, and by the introduction of new systems, such as camera-based vision and warning systems.</i>	
12:30	Questions and Discussion	
13:00	Lunch (90 Minutes)	
14:30	Headlamp Light Performance evaluation	<b>Dr. John Bullough</b> <i>Rensselaer Polytechnic Institute, Troy NY, USA</i>
	<i>Dr. John Bullough is the Director of Transportation and Safety Lighting Programs and an Adjunct Faculty Member at the Lighting Research Center, Rensselaer Polytechnic Institute in Troy, New York, USA. He conducts research in the areas of visual performance, glare, mesopic vision, color perception, flicker and driving safety, and teaches human factors and research methods in the graduate programs in Lighting at Rensselaer. John is a Fellow of the Illuminating Engineering Society, Vice President of the Council for Optical Radiation Measurements, and is a member of the Commission Internationale de l'Eclairage, the Society of Automotive Engineers, the Society for Information Display, and the Transportation Research Board of the National Academies Standing Committee on Visibility. He has written or co-written more than 450 articles and technical publications on lighting, nearly 100 of those with student co-authors.</i>	
15:00	Glare and visibility by headlight for pedestrian and elderly driver	<b>Dr. Yoshiro Aoki</b> <i>National Traffic Safety and Environment Laboratory, (NTSEL), Japan</i>
	<i>Dr. Aoki is a Senior Researcher in the National Traffic Safety and Environment Laboratory (NTSEL) in Japan. His research focuses on the area of improvement of traffic safety, light scattering in fog, the improvement of how to be seen by lighting, and the study on the vision of the elderly driver.</i>	
15:30	Coffee Break (45 Minutes)	
16:15	Glare and visibility by headlamps with different control strategy	<b>Prof. Yandan Lin - Fudan University, China</b> <i>Chinese Technical Committee of CIE</i>
	<i>Prof. Dr. Yandan Lin is working in the Department of Light Sources &amp; Illuminating Engineering in Fudan University. She received Ph.D. education in both Fudan University and Technische Universität Darmstadt. She takes the position of Chinese member for CIE Division 4 (Lighting and Signaling for Transportation). She is also the director of CIES Division for Lighting and Signaling for Transportation. Since 2013, she has successfully organized Chinese International Forum on Automotive Lighting (IFAL) for 6 years. Her research interest focuses on the relationship between lighting, visual safety, visual efficiency, and health. Some of her research projects on visual mechanism and dynamic control strategy include National Natural Science Foundation of China, Special Project for China Commercial Aircraft, National High Technology Research and Development Program of China and the National Basic Research Program of China. She has published more than 100 academic articles. She gained the second prize of Shanghai Science Progress Award in 2013 and she was awarded the Great Contribution for China Solid State Lighting Alliance in 2014. In 2016, she received Shanghai Women's Innovation Award.</i>	
16:45	Summary & Final Questions and Discussion	
17:30	End of Forum	