INTRODUCTION
The Enhanced Safety of Vehicles (ESV) program originated in 1970 under the North Atlantic Treaty Organization (NATO) Committee on the Challenges of Modern Society, and was implemented through memorandums of understanding between the Governments of the United States, France, Germany, Italy, the United Kingdom, Japan, and Sweden. The participating nations agreed to develop experimental safety vehicles to advance the state-of-the-art technology in automotive safety engineering and to meet periodically to exchange information on their progress. Since its inception the number of international partners has grown to include the Governments of Canada, Australia, The Netherlands, Hungary, Poland, Republic of Korea, and two international organizations the European Enhanced Vehicle-safety Committee, and the European Commission. A representative from each country/organization serves as a Government Focal Point in support of the ESV program.

In the interest of information exchange, The U.S. Department of Transportation, National Highway Traffic Safety Administration (NHTSA), distributes the Proceedings of the 26th International Technical Conference on the Enhanced Safety of Vehicles. The technical papers in this publication detail safety research efforts underway worldwide, and share the common interest of reducing motor vehicle related fatalities and injuries.

The opinions, findings, and conclusions expressed in the publications are the original written work of the author(s) and not necessarily those of the U.S. Department of Transportation, National Highway Traffic Safety Administration. Traditional papers are accepted after the corresponding abstracts undergo technical review. To enhance the scientific content, several papers were accepted for peer-review and published in a special edition of Traffic Injury Prevention by Taylor and Francis Group. These papers are available to the public via https://www-esv.nhtsa.dot.gov/

On behalf of the Conference Organizing Committees we thank our international participants for their dedication and support of the 26th ESV Conference and look forward to your future participation.

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National Highway Traffic Safety Administration (NHTSA)

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U.S. GOVERNMENT AWARD RECIPIENTS
Presented at the 26th ESV Conference, Eindhoven, Netherlands

U.S. Government Special Awards of Appreciation
In recognition of and appreciation for outstanding leadership and special contributions in the field of motor vehicle safety

Bernd Lorenz, Germany
Adam McNeill, Germany
Hans Ammerlaan, Netherlands
Dr. Nils Lubbe, Sweden
Martin Magnusson, Sweden
Bernie Frost, United Kingdom
Daniel Smith, United States
David Zuby, United States

U.S. Government Awards for Safety Engineering Excellence
In recognition of and appreciation for exceptional scientific contributions in the field of motor vehicle safety engineering and for distinguished service to the motoring public

Yasuhiro Matsui, Japan
Kyongsu Yi, Korea
Anders Kullgren, Sweden
Dr. Mikael Ljung Aust, Sweden
Tom Hollowell, United States
Sue Bai, United States
26th ESV INTERNATIONAL STUDENT SAFETY TECHNOLOGY DESIGN COMPETITION FINALISTS

ASIA PACIFIC
REGIONAL COORDINATOR: MASASHI YUKAWA, JSAE, JAPAN

School: Nihon University Biomechanics Team, Japan
Project Title: Development of New Lumbar-Abdominal Dummy for Vehicle Occupants
Advisor: Tetsuya Nishimoto

REGIONAL COORDINATOR: YOUNGHAN YOUN, KOREA

School: School of Mechanical and Aerospace Engineering, Seoul National University, Korea
Project Title: Health Monitoring and Emergency Braking Algorithm for Automated Driving Vehicle Fail-Safe System
Advisor: Kyongsu Yi

NORTH AMERICA
REGIONAL COORDINATOR: ART CARTER, NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION (NHTSA), UNITED STATES

School: California Polytechnic State University, San Luis Obispo, CA
Project Title: Autonomous Collision Avoidance System for Collaborative Vehicle Platooning
Advisors: Dr. Charles Birdsong (Overall Advisor)
Bruce Edward DeBaruhl (Computer Engineering Team Advisor)

School: Oregon State
Project Title: Automatic Vehicle Damage and Passenger Injury Assessment
Advisor: Dr. David Hurwitz

School: Virginia Tech Transportation Institute (VTTI)
Project Title: Pre-Rear End Positioning and Risk Extenuation System (PREPARES)
Advisor: Dr. Zachary Doerzaph