RA CONSULTING GMBH

RA Consulting, represented by the US office RA Automotive Software Solutions, Inc. is a software manufacturer and service provider for the automotive industry. The focus is on diagnostic and calibration tools and solutions. Our tools DiagRA D and Silver Scan tool are well-known tools with OBD functionality. Customers include almost all well-known car, truck, bus and engine manufacturers and their suppliers worldwide.

SOFTING AG

With its core areas of expertise, testing and diagnostics, Softing Automotive is your specialist for the entire life cycle of electronic control units and overall systems, from engineering through manufacturing to after-sales service. Our portfolio comprises hardware and software products, customized solutions as well as consulting and engineering services.

VECTOR NORTH AMERICA

Vector has been your capable partner in the development of automotive electronics. More than 3,000 employees at 31 locations worldwide support manufacturers and suppliers of the automotive industry and related industries with a professional platform of tools, software components and services for developing embedded systems.

WINTERPARK ENGINEERING LLC

WinterPark staff have been working within the automotive industry since the inception of OBDII in 1994. Since our founding in 2006, we have been providing solutions in three areas: calibration & testing, certification documentation, and consulting. WinterPark Engineering provides complete OBD certification & documentation services for marine, automotive, motorcycle, military, government, industrial, and heavy-duty manufacturers.

WIFI ACCESS:
Username/Login: Hyatt_Meeting
Password: SAE2022
## PROGRAM SCHEDULE

### TUESDAY

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Speaker/Details</th>
</tr>
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<tbody>
<tr>
<td>9:00 a.m.-9:15 a.m.</td>
<td>Welcome and Opening</td>
<td>John Van Gilder, Van Gilder Engineering, LLC</td>
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<tr>
<td>9:15 a.m.-10:00 a.m.</td>
<td>Keynote Speaker</td>
<td>Michael McCarthy, California Air Resources Board</td>
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<tr>
<td>10:00 a.m.-10:30 a.m.</td>
<td>Networking Break with Exhibits</td>
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<tr>
<td>10:30 a.m.-11:15 a.m.</td>
<td>Light Duty CARB Update</td>
<td>Xiangyi Li, California Air Resources Board</td>
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<tr>
<td>11:15 a.m.-12:15 p.m.</td>
<td>Worldwide OBD Regulations Update</td>
<td>Janean Potter, General Motors LLC</td>
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<tr>
<td>12:15 p.m.-1:30 p.m.</td>
<td>Lunch</td>
<td></td>
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<tr>
<td>1:30 p.m.-2:00 p.m.</td>
<td>Signal Flow Analysis required for OBD Compliance Reporting</td>
<td>Stephan Mauk, Concentro AG</td>
</tr>
<tr>
<td>2:00 p.m.-2:30 p.m.</td>
<td>Tampering of Emission Controls and Countermeasures</td>
<td>Dimitrios Kontses, Aristotle University of Thessaloniki</td>
</tr>
<tr>
<td>2:30 p.m.-3:00 p.m.</td>
<td>Toyota Battery Electric Vehicle Diagnostics Overview</td>
<td>Mort Smith, Toyota Motor North America</td>
</tr>
<tr>
<td>3:00 p.m.-3:30 p.m.</td>
<td>Networking Break with Exhibits</td>
<td></td>
</tr>
<tr>
<td>3:30 p.m.-4:00 p.m.</td>
<td>Challenges with On Board Monitoring</td>
<td>Sarah Funk and Erika Pruski, General Motors LLC</td>
</tr>
<tr>
<td>4:00 p.m.-4:30 p.m.</td>
<td>An introduction to the standard requirements for on-board data tracking and recording of light vehicles in China</td>
<td>Le Liu, CATARC (China Automotive Technology and Research Center)</td>
</tr>
<tr>
<td>4:30 p.m.-5:15 p.m.</td>
<td>Introduction of China Next Stage OBD for Light Duty Vehicles</td>
<td>Yumin Fu, Vehicle Emission Control Center</td>
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### WEDNESDAY

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<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Speaker/Details</th>
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<tbody>
<tr>
<td>9:00 a.m.-9:30 a.m.</td>
<td>Getting Ready for ZEV OBD--An Off-the-Stack Software Stack</td>
<td>Wigbert Knap, Vector Informatik GmbH</td>
</tr>
<tr>
<td>9:30 a.m.-10:00 a.m.</td>
<td>Zero Emission Vehicle Update</td>
<td>Andrew Zettel, General Motors Proving Ground</td>
</tr>
<tr>
<td>10:00 a.m.-10:30 a.m.</td>
<td>Networking Break with Exhibits</td>
<td></td>
</tr>
<tr>
<td>10:30 a.m.-11:00 a.m.</td>
<td>Challenges to develop a range monitor for all-electric vehicles</td>
<td>Gianni DiMartino, APS-technology GmbH</td>
</tr>
<tr>
<td>11:00 a.m.-12:00 p.m.</td>
<td>Roundtable Discussion: Zero Emission Vehicles</td>
<td>Andrew Zettel, General Motors</td>
</tr>
<tr>
<td>12:00 p.m.-1:30 p.m.</td>
<td>Lunch</td>
<td></td>
</tr>
<tr>
<td>1:30 p.m.-2:30 p.m.</td>
<td>OBD Standards Review : J1979, J2012, J1699</td>
<td>Mort Smith, Toyota Motor North America &amp; Rob Weiss, Mahindra Automotive North America</td>
</tr>
<tr>
<td>2:30 p.m.-3:00 p.m.</td>
<td>An OBD Compliant 12V Main Battery and DEC-ECU. Wait, what??</td>
<td>Michael Taljonick, IAV Automotive Engineering Inc.</td>
</tr>
<tr>
<td>3:00 p.m.-3:30 p.m.</td>
<td>Networking Break with Exhibits</td>
<td></td>
</tr>
<tr>
<td>3:30 p.m.-4:00 p.m.</td>
<td>Design considerations for the diagnostics concept of a fail-operational steering system for an L4/L5 automated vehicle</td>
<td>Marcel Romijn, Roben Automotive</td>
</tr>
<tr>
<td>4:00 p.m.-5:00 p.m.</td>
<td>Roundtable Discussion: Communication / Unified Diagnostic Services (UDS) / Electronic Periodic Technical Inspection (EPTI), J1979-2, CyberSecurity</td>
<td>Marcel Romijn, Roben Automotive and Mort Smith, Toyota Motor North America</td>
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<tr>
<td>5:30 p.m.</td>
<td>Reception</td>
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### THURSDAY

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<tr>
<th>Time</th>
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<tr>
<td>9:00 a.m.-9:45 a.m.</td>
<td>Roundtable Discussion: EU Regulatory</td>
<td>Frank Dorer, Volkswagen AG and Hector Sindano, Ricardo UK, Ltd.</td>
</tr>
<tr>
<td>9:45 a.m.-10:15 a.m.</td>
<td>On-board Electrostatic PM (ePM) Sensing for Filter IUMPR Compliance</td>
<td>Patrick Thompson, Emisense Technologies LLC</td>
</tr>
<tr>
<td>10:15 a.m.-10:40 a.m.</td>
<td>Networking Break with Exhibits</td>
<td></td>
</tr>
<tr>
<td>10:40 a.m.-11:30 a.m.</td>
<td>Project updates from California Bureau of Automotive Repair</td>
<td>Paul Hedglin, Jonathan Gee, and Marlo Solidum, Bureau of Automotive Repair</td>
</tr>
<tr>
<td>11:30 a.m.-12:00 p.m.</td>
<td>Diagnostic and Repair Services for Advanced Driver Aid Systems and Automated Vehicles</td>
<td>Mark Monohon</td>
</tr>
<tr>
<td>12:00 p.m.-1:00 p.m.</td>
<td>Lunch</td>
<td>Sponsored by Cummins</td>
</tr>
<tr>
<td>1:00 p.m.-1:30 p.m.</td>
<td>Another look at the diagnostics for exhaust systems with dual urea</td>
<td>Michiel Van Nieuwstadt, Ford Motor Company</td>
</tr>
<tr>
<td>1:30 p.m.-2:00 p.m.</td>
<td>OBD goes ODX: Architecture of the ODX database for MVCI-based OBD Scantools</td>
<td>Peter Subke, Softing Automotive</td>
</tr>
<tr>
<td>2:00 p.m.-2:30 p.m.</td>
<td>OBD Test Efficiencies Through Automation</td>
<td>John Bowman, General Motors LLC</td>
</tr>
<tr>
<td>2:30 p.m.-3:00 p.m.</td>
<td>Networking Break with Exhibits</td>
<td></td>
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<tr>
<td>3:00 p.m.-3:45 p.m.</td>
<td>REGULATORY UPDATE: Heavy Duty OBD &amp; Motorcycle</td>
<td>Frederico Garza, California Air Resources Board</td>
</tr>
<tr>
<td>3:45 p.m.-4:45 p.m.</td>
<td>Roundtable Discussion: Heavy Duty &amp; Motorcycle</td>
<td>Justin Owen, Cummins Inc. and Marcel Romijn, Roben Automotive</td>
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