**Tuesday, August 4, 2020**

<table>
<thead>
<tr>
<th>Time</th>
<th>AM Session</th>
<th>PM Session</th>
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</thead>
<tbody>
<tr>
<td>8:15 am</td>
<td>Welcome &amp; Introductions&lt;br&gt;Mehdi Shafiei, PhD&lt;br&gt;Technology Development Manager&lt;br&gt;Novelis</td>
<td>Lecture: Introduction to Vehicle Crashworthiness (cont.)&lt;br&gt;Instructor: Sudip Bhattacharjee, PhD&lt;br&gt;Supervisor: Ford</td>
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<td>8:30 am</td>
<td>Opening Remarks&lt;br&gt;Warren Parsons&lt;br&gt;Chief Architect&lt;br&gt;General Motors</td>
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<tr>
<td>10:15 am</td>
<td>Break</td>
<td>Break</td>
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<tr>
<td>12:30 pm</td>
<td>Lecture Adjourned &amp; Lunch</td>
<td>Adjournment</td>
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The Program Committee and Board of Directors reserves the right to amend this program without any notice.
### Wednesday, August 5, 2020

<table>
<thead>
<tr>
<th>Time</th>
<th>Virtual Classroom</th>
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<tbody>
<tr>
<td>8:00 am</td>
<td><strong>Lecture:</strong> Aluminum Solutions for Automotive Body &amp; Structures&lt;br&gt;<strong>Instructors:</strong> Blake Zuidema, PhD, Laurent Chappuis, Michael Bull, &lt;br&gt;Novelis&lt;br&gt;Jerome Fourmann&lt;br&gt;RTA</td>
<td>1:00 pm</td>
<td><strong>Lecture:</strong> Aluminum Solutions for Automotive Body &amp; Structures (cont.)&lt;br&gt;<strong>Instructors:</strong> John Hunter, PhD, Laurent Chappuis, Julio Malpica&lt;br&gt;Novelis</td>
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<td>9:00 am</td>
<td><strong>Introduction &amp; New Trends for AI Applications</strong>&lt;br&gt;- General Introduction&lt;br&gt;- Fuel economy &amp; lightweighting&lt;br&gt;- Consideration for BEVs&lt;br&gt;<strong>Laurent Chappuis</strong>&lt;br&gt;Novelis&lt;br&gt;<strong>Lightweighting Strategies and Environmental Impact</strong>&lt;br&gt;- New Trends in AI Sheet Applications&lt;br&gt;- Recycling Considerations</td>
<td>3:00 pm</td>
<td><strong>Break</strong></td>
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<tr>
<td>10:00 am</td>
<td><strong>Break</strong></td>
<td>3:15 pm</td>
<td><strong>Laurent Chappuis, Julio Malpica</strong>&lt;br&gt;Novelis&lt;br&gt;<strong>Forming Aluminum Automotive Body Sheet</strong>&lt;br&gt;- Material Data Cards for Simulation of Formability&lt;br&gt;- Aluminum Stamping&lt;br&gt;- Other Forming Technologies (Hot Forming, Roll Forming, Hydroforming, etc.)</td>
</tr>
<tr>
<td>10:15 am</td>
<td><strong>Jerome Fourmann</strong>&lt;br&gt;RTA&lt;br&gt;<strong>Material and Product Performance Selection Criteria – AI Castings &amp; Extrusions</strong>&lt;br&gt;- AI Castings for Automotive Structures&lt;br&gt;- AI Extrusions for Automotive Structures</td>
<td>11:30 am</td>
<td><strong>Michael Bull</strong>&lt;br&gt;Novelis&lt;br&gt;<strong>Material and Product Performance Selection Criteria – AI Sheet Products</strong>&lt;br&gt;- AI Sheet Processing for Automotive Applications&lt;br&gt;- Criteria for Outer, Inner, and Structural Applications</td>
</tr>
<tr>
<td>11:30 am</td>
<td><strong>Lecture Adjourned &amp; Lunch</strong></td>
<td>5:30 pm</td>
<td>Adjournment</td>
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**Thursday, August 6, 2020**

<table>
<thead>
<tr>
<th>Time</th>
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| 8:00 am | Joao Moraes, Patrick Lester  
Novelis  
Joining Technologies for Aluminum Sheet Products  
- Mechanical Joining – SPR, Cinch, Bolt  
- Resistance Spot Welding  
- Laser Joining  
- Adhesive Bonding | 12:30 pm | Donald Whitacre  
Novelis  
Advanced Design with Aluminum – Key Enablers  
- Key Enablers in Designing High-Volume, Low-Cost Sheet Aluminum Products  
- Application Examples (AI Doors, Battery Enclosures, Longitudinal Rails, Side Impact Beams) |
| 10:00 am | Break | 1:30 pm | Antonio Figueroa, Jim Evangelista  
Shiloh  
Design for Noise, Vibration, and Harshness  
- Noise & Sound Generation  
- Noise & Sound Transmission |
| 10:15 am | Akshay Kulkarni  
Novelis  
Design for Crash Performance  
- Vehicle Crashworthiness  
- Key Structural Parts in Various Crash Modes  
- Material Fracture and Joint Failure in Crash  
- Novelis’ High Strength AI Crash Alloys  
- All AI Battery Enclosure Design for BEVs  
- Case Study – AI vs Steel | 2:30 pm | Break |
| 12:00 pm | Lecture Adjourned and Lunch | 2:45 pm | Richard Newton  
Novelis  
Design Considerations for Lightweight Closures  
- Design Principles & Guidelines  
- Value-In-Use, Including Impact of Recycling |
|       |       | 3:45 pm | Q&A – Feedback |
|       |       |        | Adjournment |

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August 4-6, 2020
Virtual Course Registration Form

FEE SCHEDULE FOR REGISTRANTS
Fee for Attending for 3 Days is $1,500
(Access to virtual lectures for all days of the courses; also includes access to the Courses 2020 Materials)

☐ Fee for Attending for 3 Days is $1,500
☐ Team Fee for Attending for 3 Days $1,200
☐ Fee for Attending for 2 Days is $1,200
☐ Fee for Attending for 1 Day is $1,000
☐ Fee for Attending for Half a Day is $700

Tell us which day(s) you would like to attend (If it is half a day please state whether it is am or pm):
________________________________________________________________________________________

PLEASE PRINT OR TYPE (ALL FIELDS REQUIRED)
The address you provide must be the billing address associated with the account

I'd like to receive email communications about this and future GAMC events: ☐

Full Name:

Position:

Organization:

Email:

Card Number:

Expiration Date:

CVC:

Amount:

Address:

ZIP:

Phone (Office): Mobile:

PAYMENT METHODS: (All checks must be drawn from U.S. banks in U.S. funds)
Make Check Payable to: Global Automotive Management Council in the amount of, US$ ____________________________

Signature: X __________________________________________ Date: __________________________

Mail, Fax or Email Registration Form to:
Tarek Uddin, Business Development Manager, tareku@gamcinc.com
P.O. Box 131221
Ann Arbor, MI 48113 USA
FAX: (734) 786-2242
Refund Policy: No refunds. All returned checks receive a $50 fee.
Online Registration Available at www.gamcinc.com

Comments: __________________________________________________________

How did you hear about us?
________________________________________________________________________________________

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