<table>
<thead>
<tr>
<th>Start time</th>
<th>End time</th>
<th>Track 1</th>
<th>Track 2</th>
<th>Track 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>08:00</td>
<td>09:30</td>
<td><strong>Session A</strong></td>
<td><strong>Session A</strong></td>
<td><strong>Session A</strong></td>
</tr>
<tr>
<td>09:30</td>
<td>10:00</td>
<td><strong>Break</strong></td>
<td><strong>Break</strong></td>
<td><strong>Break</strong></td>
</tr>
<tr>
<td>10:00</td>
<td>12:00</td>
<td><strong>Session B</strong></td>
<td><strong>Session B</strong></td>
<td><strong>Session B</strong></td>
</tr>
<tr>
<td>12:00</td>
<td>13:30</td>
<td><strong>Lunch Provided</strong></td>
<td><strong>Lunch Provided</strong></td>
<td><strong>Lunch Provided</strong></td>
</tr>
<tr>
<td>13:30</td>
<td>15:00</td>
<td><strong>Session C</strong></td>
<td><strong>Session C</strong></td>
<td><strong>Session C</strong></td>
</tr>
<tr>
<td>15:00</td>
<td>15:30</td>
<td><strong>Break</strong></td>
<td><strong>Break</strong></td>
<td><strong>Break</strong></td>
</tr>
<tr>
<td>15:30</td>
<td>17:00</td>
<td><strong>Session D</strong></td>
<td><strong>Session D</strong></td>
<td><strong>Session D</strong></td>
</tr>
</tbody>
</table>

Disclaimer: Technical program as of June 09, 2016 - Subject to change.
<table>
<thead>
<tr>
<th>Start Time</th>
<th>End Time</th>
<th>Session</th>
<th>Track 1</th>
<th>Track 2</th>
<th>Track 3</th>
<th>Track 4</th>
<th>Track 5</th>
<th>Track 6</th>
<th>Track 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>09:30</td>
<td>10:00</td>
<td>Break</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:00</td>
<td>12:00</td>
<td>Session F</td>
<td>Tutorial: An introduction to MBSE (Scarecrow Consultants)</td>
<td>Tutorial: An introduction to MBSE (Scarecrow Consultants)</td>
<td>Tutorial: An introduction to MBSE (Scarecrow Consultants)</td>
<td>Tutorial: An introduction to MBSE (Scarecrow Consultants)</td>
<td>Tutorial: An introduction to MBSE (Scarecrow Consultants)</td>
<td>Tutorial: An introduction to MBSE (Scarecrow Consultants)</td>
<td>Tutorial: An introduction to MBSE (Scarecrow Consultants)</td>
</tr>
<tr>
<td>12:00</td>
<td>13:30</td>
<td>Lunch Provided</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15:00</td>
<td>15:30</td>
<td>Break</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Track 1</td>
<td>Track 2</td>
<td>Track 3</td>
<td>Track 4</td>
<td>Track 5</td>
<td>Track 6</td>
<td>Track 7</td>
<td>Track 8</td>
<td>Track 9</td>
<td>Track 10</td>
</tr>
<tr>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>---------</td>
</tr>
<tr>
<td>08:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>09:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Monday at IS 2016

Session 1

Conceptual System Models
- Based Systems Engineering
- Using Higraph-Based Models
- Complexity in Design Phase

Maged Elaasar (JPL)

Session 2

- Framework for Evaluating the (Boeing)
- SkiPo _ a sketch and flow Systems Engineering a Model
- Simplifying (and enriching)

Veronique Normand (Thales)

Session 3

- ESEM: Automated Systems Expressive Power of
- Analysis using Executable
- MBSE tooling

David Lempia (Rockwell Systems Sciences); Terry Broodney (IBM Research - Systems Sciences)

Session 4

- Core MBSE
- Complete MBSE
- Software Factory

Loughborough University; Technion, Faculty of Engineering; Naval Postgraduate School; Peter Shames (CIT / Jet Propulsion Laboratory); Sanford Friedman (Defence Science and Technology Group)

Session 5

- MBSE using Higraph-Based Model
- MBSE Systems
- MBSE Systems Development

Boeing; Technion, Faculty of Engineering; NATO; INCOSE; Northrop Grumman Corporation; Naval Postgraduate School; Peter Shames (CIT / Jet Propulsion Laboratory); Sanford Friedman (Defence Science and Technology Group)

Session 6

- Compiler-Based Model to Develop Model-Based Predictive Maintenance
- A practical example of a software factory: building a custom application for Life Cycle Phases for Steel-Plant Optimization

Naval Postgraduate School; Naval Postgraduate School; Peter Shames (CIT / Jet Propulsion Laboratory); Sanford Friedman (Defence Science and Technology Group)

Session 7

- MBSE tracking
- Requirements
- Transportation

University of New South Wales, Canberra; Naval Postgraduate School; University of New South Wales, Canberra; Naval Postgraduate School; Peter Shames (CIT / Jet Propulsion Laboratory); Sanford Friedman (Defence Science and Technology Group)

Session 8

- Case Study: Cyber-Physical Systems, Internet-of-Things Engineering
- Analyzing the Decision Process for Critical Infrastructure Health Models: A Model Based Approach
- Using Visual Diagrams and Complete Requirements

University of New South Wales, Canberra; Naval Postgraduate School; Peter Shames (CIT / Jet Propulsion Laboratory); Sanford Friedman (Defence Science and Technology Group)

Session 9

- Tutorial: Avoiding Risk and Opportunity Management
- Practitioners Challenge

University of New South Wales, Canberra; Naval Postgraduate School; Peter Shames (CIT / Jet Propulsion Laboratory); Sanford Friedman (Defence Science and Technology Group)

Disclaimer: Technical program as of June 08, 2016 - Subject to change.
## IS2016 Schedule

**Tuesday at IS 2016**

#### 08:00

<table>
<thead>
<tr>
<th>Track 1</th>
<th>Track 2</th>
<th>Track 3</th>
<th>Track 4</th>
<th>Track 5</th>
<th>Track 6</th>
<th>Track 7</th>
<th>Track 8</th>
<th>Track 9</th>
<th>Track 10</th>
<th>Track 11</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MSEE</strong></td>
<td><strong>Verification &amp; Validation</strong></td>
<td><strong>Systems Thinking</strong></td>
<td><strong>Teaching &amp; Training</strong></td>
<td><strong>Transportation</strong></td>
<td><strong>Product Line Engineering</strong></td>
<td><strong>Agile Systems Engineering</strong></td>
<td><strong>Leadership in Systems Engineering</strong></td>
<td><strong>Meeting &amp; Simulation</strong></td>
<td><strong>Challenges</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Session 4</strong></td>
<td><strong>Track 4</strong></td>
<td><strong>Track 3</strong></td>
<td><strong>Track 2</strong></td>
<td><strong>Track 1</strong></td>
<td><strong>Track 5</strong></td>
<td><strong>Track 6</strong></td>
<td><strong>Track 7</strong></td>
<td><strong>Track 8</strong></td>
<td><strong>Track 9</strong></td>
<td><strong>Track 10</strong></td>
</tr>
<tr>
<td><strong>12:10</strong></td>
<td><strong>15:30</strong></td>
<td><strong>14:55</strong></td>
<td><strong>09:30</strong></td>
<td><strong>08:00</strong></td>
<td><strong>12:10</strong></td>
<td><strong>15:30</strong></td>
<td><strong>14:55</strong></td>
<td><strong>09:30</strong></td>
<td><strong>08:00</strong></td>
<td><strong>12:10</strong></td>
</tr>
</tbody>
</table>

**Disclaimer:** Technical program as of June 09, 2016 - Subject to change.

### 08:00 - 12:10

**Session 1**

- **Discussion:** Activities for the System Engineering of the Future
- **Moderator:** Guillaume Prévost, Arian L'Homme, Corporate Services

## Technical Program

### Track 1: Verification & Validation

- **Session 1:**
  - **Title:** Decentralized Policy-Driven Model Check
  - **Authors:** Jonas Hallqvist, Jonas Larsson
  - **Affiliation:** Saab

- **Session 2:**
  - **Title:** Application of OCL in Verification Framework (UAF)
  - **Authors:** Philip Helle, Wladimir Schamai, Nichole Kass, James Kolozs
  - **Affiliation:** Syncroness

### Track 2: Systems Thinking

- **Session 1:**
  - **Title:** Applying System Thinking to Agile Systems Engineering: Insights from Large Scale Project Management
  - **Authors:** John Miles (GMTO), John Friedland (Boeing), William Haskins (Boeing), Cecilia Haskins (NTNU)
  - **Affiliation:** GMTO

- **Session 2:**
  - **Title:** MBSE for Agile Systems Engineering at Scale
  - **Authors:** Brian Brown (Atkins/MARTA), Meaghan Roberts (University of Waterloo)
  - **Affiliation:** Atkins

### Track 3: Teaching & Training

- **Session 1:**
  - **Title:** Empowering in the Workplace: An Integral Approach to Risk Management
  - **Authors:** Lloyd Barson, Amir Toossi, Maxime Sing, Andrew Fisher
  - **Affiliation:** University of British Columbia

- **Session 2:**
  - **Title:** Agile Systems Engineering in Very Small Enterprises: Challenges and Opportunities
  - **Authors:** Royce Corcoran, Andy Nolan (Rolls-Royce plc)
  - **Affiliation:** University of Cambridge

### Track 4: Transportation

- **Session 1:**
  - **Title:** Framework (UAF)
  - **Authors:** Christoph Carlsson, Karin Huber, Stefan Klinker, Richard Bäckström
  - **Affiliation:** UAF

- **Session 2:**
  - **Title:** MBSE for Agile Systems Engineering at Scale
  - **Authors:** Brian Brown (Atkins/MARTA), Meaghan Roberts (University of Waterloo)
  - **Affiliation:** Atkins

### Track 5: Product Line Engineering

- **Session 1:**
  - **Title:** MBSE for Agile Systems Engineering at Scale
  - **Authors:** Brian Brown (Atkins/MARTA), Meaghan Roberts (University of Waterloo)
  - **Affiliation:** Atkins

- **Session 2:**
  - **Title:** Agile Systems Engineering in Very Small Enterprises: Challenges and Opportunities
  - **Authors:** Royce Corcoran, Andy Nolan (Rolls-Royce plc)
  - **Affiliation:** University of Cambridge

### Track 6: Agile Systems Engineering

- **Session 1:**
  - **Title:** Agile Systems Engineering in Very Small Enterprises: Challenges and Opportunities
  - **Authors:** Royce Corcoran, Andy Nolan (Rolls-Royce plc)
  - **Affiliation:** University of Cambridge

- **Session 2:**
  - **Title:** Agile Systems Engineering in Very Small Enterprises: Challenges and Opportunities
  - **Authors:** Royce Corcoran, Andy Nolan (Rolls-Royce plc)
  - **Affiliation:** University of Cambridge

### Track 7: Leadership in Systems Engineering

- **Session 1:**
  - **Title:** Agile Systems Engineering in Very Small Enterprises: Challenges and Opportunities
  - **Authors:** Royce Corcoran, Andy Nolan (Rolls-Royce plc)
  - **Affiliation:** University of Cambridge

- **Session 2:**
  - **Title:** Agile Systems Engineering in Very Small Enterprises: Challenges and Opportunities
  - **Authors:** Royce Corcoran, Andy Nolan (Rolls-Royce plc)
  - **Affiliation:** University of Cambridge

### Track 8: Meeting & Simulation

- **Session 1:**
  - **Title:** Agile Systems Engineering in Very Small Enterprises: Challenges and Opportunities
  - **Authors:** Royce Corcoran, Andy Nolan (Rolls-Royce plc)
  - **Affiliation:** University of Cambridge

- **Session 2:**
  - **Title:** Agile Systems Engineering in Very Small Enterprises: Challenges and Opportunities
  - **Authors:** Royce Corcoran, Andy Nolan (Rolls-Royce plc)
  - **Affiliation:** University of Cambridge

### Track 9: Challenges

- **Session 1:**
  - **Title:** Agile Systems Engineering in Very Small Enterprises: Challenges and Opportunities
  - **Authors:** Royce Corcoran, Andy Nolan (Rolls-Royce plc)
  - **Affiliation:** University of Cambridge

- **Session 2:**
  - **Title:** Agile Systems Engineering in Very Small Enterprises: Challenges and Opportunities
  - **Authors:** Royce Corcoran, Andy Nolan (Rolls-Royce plc)
  - **Affiliation:** University of Cambridge
<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>Track 1</th>
<th>Track 2</th>
<th>Track 3</th>
<th>Track 4</th>
<th>Track 5</th>
<th>Track 6</th>
<th>Track 7</th>
<th>Track 8</th>
<th>Track 9</th>
<th>Track 10</th>
<th>Track 11</th>
</tr>
</thead>
<tbody>
<tr>
<td>09:00</td>
<td>Inaugural Plenary Session</td>
<td>MBIESE</td>
<td>(Speaker)</td>
<td>(Speaker)</td>
<td>(Speaker)</td>
<td>(Speaker)</td>
<td>(Speaker)</td>
<td>(Speaker)</td>
<td>(Speaker)</td>
<td>(Speaker)</td>
<td>(Speaker)</td>
<td>(Speaker)</td>
</tr>
<tr>
<td>09:30</td>
<td>Opening Session</td>
<td>MBIESE</td>
<td>(Chair: Gary Arabian, Transport for Campbell (SMART, University of Windsor))</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:00</td>
<td>Panel: Systems Engineering in Practice</td>
<td>MBIESE</td>
<td>(Chair: Michael Ryan, University of Missouri (Missouri University of Science and Technology))</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:30</td>
<td>Session 7</td>
<td>MBIESE</td>
<td>Architecture design</td>
<td>Systems of Systems</td>
<td>Infrastructure &amp; Resource management</td>
<td>Automotive &amp; Transportation</td>
<td>Biomedical &amp; Healthcare</td>
<td>Multi-Layer Control Engineering</td>
<td>Foster Systems thinking</td>
<td>Practitioners Challenge</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11:15</td>
<td>Systems Engineering of Electric Power Systems</td>
<td>MBIESE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11:45</td>
<td>Session 8</td>
<td>MBIESE</td>
<td>Architecture design</td>
<td>Systems of Systems</td>
<td>Infrastructure &amp; Resource management</td>
<td>Automotive &amp; Transportation</td>
<td>Biomedical &amp; Healthcare</td>
<td>Multi-Layer Control Engineering</td>
<td>Foster Systems thinking</td>
<td>Practitioners Challenge</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12:15</td>
<td>Lunch Break</td>
<td>MBIESE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14:00</td>
<td>Systems Engineering of Electric Power Systems</td>
<td>MBIESE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Disclaimer: Technical program as of June 08, 2016 - Subject to change.
<table>
<thead>
<tr>
<th>Time</th>
<th>Track 1</th>
<th>Track 2</th>
<th>Track 3</th>
<th>Track 4</th>
<th>Track 5</th>
<th>Track 6</th>
<th>Track 7</th>
<th>Track 8</th>
<th>Track 9</th>
<th>Track 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>08:00</td>
<td>08:05</td>
<td>MBSE</td>
<td>MBSE</td>
<td>MBSE</td>
<td>MBSE</td>
<td>MBSE</td>
<td>MBSE</td>
<td>MBSE</td>
<td>MBSE</td>
<td>MBSE</td>
</tr>
<tr>
<td>08:30</td>
<td>Afternoon</td>
<td>Afternoon</td>
<td>Afternoon</td>
<td>Afternoon</td>
<td>Afternoon</td>
<td>Afternoon</td>
<td>Afternoon</td>
<td>Afternoon</td>
<td>Afternoon</td>
<td>Afternoon</td>
</tr>
<tr>
<td>08:45</td>
<td>Session 11</td>
<td>Session 11</td>
<td>Session 11</td>
<td>Session 11</td>
<td>Session 11</td>
<td>Session 11</td>
<td>Session 11</td>
<td>Session 11</td>
<td>Session 11</td>
<td>Session 11</td>
</tr>
<tr>
<td>09:00</td>
<td>MBSE</td>
<td>MBSE</td>
<td>MBSE</td>
<td>MBSE</td>
<td>MBSE</td>
<td>MBSE</td>
<td>MBSE</td>
<td>MBSE</td>
<td>MBSE</td>
<td>MBSE</td>
</tr>
<tr>
<td>09:15</td>
<td>MBSE</td>
<td>MBSE</td>
<td>MBSE</td>
<td>MBSE</td>
<td>MBSE</td>
<td>MBSE</td>
<td>MBSE</td>
<td>MBSE</td>
<td>MBSE</td>
<td>MBSE</td>
</tr>
<tr>
<td>09:30</td>
<td>MBSE</td>
<td>MBSE</td>
<td>MBSE</td>
<td>MBSE</td>
<td>MBSE</td>
<td>MBSE</td>
<td>MBSE</td>
<td>MBSE</td>
<td>MBSE</td>
<td>MBSE</td>
</tr>
<tr>
<td>09:45</td>
<td>MBSE</td>
<td>MBSE</td>
<td>MBSE</td>
<td>MBSE</td>
<td>MBSE</td>
<td>MBSE</td>
<td>MBSE</td>
<td>MBSE</td>
<td>MBSE</td>
<td>MBSE</td>
</tr>
</tbody>
</table>

**Disclaimer:**
Technical program as of June 08, 2016 - Subject to change.