TIC 2 Day CPD Master Class – Power Transformer Insulation

Program Brisbane 17-18\textsuperscript{th} Oct 2019

Venue: University Queensland, Brisbane, St Lucia Campus,
Sir James Foote Building 47A, Level 4, SMI Seminar Room.

Day 1, 17\textsuperscript{th} Oct 2019

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Presenter</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.30-9.00</td>
<td>Registration</td>
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<tr>
<td>9.00-9.15</td>
<td>Welcome</td>
<td>Prof Tapan Saha/Ray Holzheimer</td>
<td>University of Queensland</td>
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</tbody>
</table>
| 9:15 -10:00| Session 1  
The making of cellulosic insulation                         | Chris Krause               | Weidmann                             |
| 10.00 -10.30| Morning Tea                                                            |                            |                                     |
| 10.30- 11:45| Session 2  
Where we need insulation                                     | Michael O’Brien            | GE Grid Solutions                    |
| 11:45-12.30| Session 3  
Insulation components – quality features                     | Chris Krause               | Weidmann                             |
| 12.30- 1.00| Lunch                                                                   |                            |                                     |
| 1.00- 1.45| Session 4  
Insulation design principles                                   | Chris Krause               | Weidmann                             |
| 1:45-2:30| Session 5  
The history of some ideas: Multi-duct insulation, petalled collars, the first duct shrinking.  Are old designs with bigger margins safer? | Michael O’Brien            | GE Grid Solutions                    |
| 2.30- 3.00| Afternoon tea                                                           |                            |                                     |
| 3.00- 3.45| Session 6  
Winding design for AC and impulse                                       | Michael O’Brien            | GE Grid Solutions                    |
| 4:15- 4.30| Session 7  
Questions and open floor discussion                                    | All                        |                                     |
| 4.30   | Close                                                                    | Prof Tapan Saha/Ray Holzheimer | University of Queensland             |
| 4.30-5.00| Update on TIC Research Projects and CPD courses                                      |
| 5.00-6.00| Pizzas/refreshments, St Lucia Campus (5min walk)                                              |

Note The program may change. Refer to our website for the latest version. [http://www.itee.uq.edu.au/tic-cpd](http://www.itee.uq.edu.au/tic-cpd)
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### Program Brisbane 17-18th Oct 2019

**Day 2, 18th Oct 2019**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker</th>
</tr>
</thead>
</table>
| 8:00 - 9:00 | Session 8  
Insulation drying                                                   | Chris Krause  
Weidmann       |
| 9:00 - 10:00 | Session 9  
Static clamping of windings – short-circuit strength                  | Chris Krause  
Weidmann       |
| 10:00 - 10:30 | Morning Tea                                                               |               |
| 10:30 - 12:30 | Session 10  
The messy world of Engineering  
The superiority of Nomex?  
Electrode design. Rockets or lots of paper?  
Turret diameters  
Cut outs, for creep paths | Michael O’Brien  
GE Grid Solutions       |
| 12:30 - 1:00 | Lunch                                                                 |               |
| 1:00 - 1:45 | Session 11  
Transformers’ secret killers                                             | Chris Krause  
Weidmann       |
| 1:45 - 2:30 | Session 12  
Nothing lasts forever?  
In-service findings, including clamping force reduction, DP findings, Air bags,  
AgS,                                      | Michael O’Brien  
GE Grid Solutions       |
| 2:30 - 3:00 | Afternoon tea                                                             |               |
| 3:00 - 3:45 | Session 13  
Tracing bad DGA.                                                         | Michael O’Brien  
GE Grid Solutions       |
| 3:45 - 4:15 | Session 13  
Questions and open floor discussion                                      | All            |
| 4:30 | Closing of Course                                                        | Ray Holzheimer  
University of Queensland       |