

# **ISA Food and Pharmaceutical Industries Division Symposium 2016 (FPID)**

Food and Pharmaceutical Futures – Technology  
and Innovation for 2020 Global Demands

ISA Volume 512

Cork, Ireland  
14 March 2016

ISBN: 978-1-5108-3481-1

**Printed from e-media with permission by:**

Curran Associates, Inc.  
57 Morehouse Lane  
Red Hook, NY 12571



**Some format issues inherent in the e-media version may also appear in this print version.**

Copyright© (2016) by International Society of Automation - ISA  
All rights reserved.

Printed by Curran Associates, Inc. (2017)

For permission requests, please contact International Society of Automation - ISA  
at the address below.

International Society of Automation - ISA  
67 Alexander Drive  
Research Triangle Park, NC 27709 USA

Phone: (919) 549-8411  
Fax: (919) 549-8288

[info@isa.org](mailto:info@isa.org)

**Additional copies of this publication are available from:**

Curran Associates, Inc.  
57 Morehouse Lane  
Red Hook, NY 12571 USA  
Phone: 845-758-0400  
Fax: 845-758-2633  
Email: [curran@proceedings.com](mailto:curran@proceedings.com)  
Web: [www.proceedings.com](http://www.proceedings.com)

# TABLE OF CONTENTS

<b>Automation Services for the 21<sup>st</sup> Century</b> .....	1
<i>K. Starr</i>	
<b>Alarm Management Implementation on a Plant</b> .....	11
<i>E. O'Connor</i>	
<b>Alarm Management Reflections</b> .....	19
<i>N. Sands</i>	
<b>Alarm System Performance Metrics</b> .....	28
<i>K. Van Camp</i>	
<b>Automation Delivery – Large Scale Facility: Case Study On Delivery Of Large Scale Vaccines Project In Belgium And The Delivery Of The Automation Solution For The Project</b> .....	46
<i>N/A</i>	
<b>Irish Manufacturing and It's Readiness for Industry 4.0</b> .....	57
<i>A. Lynch</i>	
<b>Serialisation: GS1 Standards in Healthcare</b> .....	63
<i>S. Duggan</i>	
<b>The Science Of Manufacturing: Making OEE Work As A Practical Business Performance Metric For Your Plant</b> .....	78
<i>A. Stone</i>	
<b>Food Safety: Five Steps to Digitize and Improve Your Food Safety Program</b> .....	99
<i>J. Whyte</i>	
<b>Serialization: Implementation Challenges &amp; Business ROI Opportunities</b> .....	112
<i>J. Whyte</i>	
<b>Preparing for a Data Integrity (DI) Audit</b> .....	124
<i>G. Wright</i>	
<b>Using Data to Optimize the Product Lift Cycle</b> .....	136
<i>P. McKenzie, M. Hooybergs, T. Murphy, A. Fermier, C. Strain</i>	
<b>ISA FPID International Automation &amp; Control Symposium: IT/Automation for a Bio-Pharma Facility in a Green Field State</b> .....	147
<i>N/A</i>	
<b>Mitigating Cybersecurity Risk to Life Science Manufacturing</b> .....	159
<i>J. LaBonty</i>	
<b>Prototyping Control Systems With ISA-S88/S95: What Is Prototyping Anyway? Whats In It For My Project? Prototyping As A Catalyst For 'Agile'</b> .....	169
<i>C. Garvey</i>	
<b>How the Internet of Things is Driving Track &amp; Trace</b> .....	178
<i>R. Jones</i>	
<b>Securing your IP in the OT Environment</b> .....	191
<i>A. Meijer</i>	
<b>Securpharm-System in Germany – Lessons Learned</b> .....	211
<i>P. Koop</i>	
<b>Serialisation End User View</b> .....	218
<i>N/A</i>	
<b>The Business Of Buying Serialisation: From A Suppliers Perspective</b> .....	228
<i>N/A</i>	
<b>Author Index</b>	