



Course	RFID Middleware and Applications																																									
Overview	<p>We are recently witnessing a proliferation of RFID (Radio Frequency Identification) applications, in a wide range of fields including logistics, trade and industry. While RFID technology is based on simple operational principles, the complete design and implementation of any non-trivial RFID solution is still a very arduous and resource consuming task.</p> <p>Non-trivial RFID applications comprise typically multiple readers and tags, as well as multiple consuming applications in a highly heterogeneous landscape. In this landscape, different tag information streams have to be routed across different business applications, according to sets of complex business rules. Given this complexity, the development of RFID solutions is nowadays facilitated by middleware infrastructures, which undertake to interface to heterogeneous readers, filter the tag streams, generate application specific events, and eventually route these events to the appropriate business applications.</p> <p>This course will provide insights on the operational principles of RFID systems, as well as on the middleware components required to build a non-trivial RFID solution. Solution deployment will be presented end-to-end i.e. from reading and filtering the tag streams till the interfacing with enterprise applications (such as ERP and WMS systems).</p>																																									
Objectives	<ul style="list-style-type: none"> ■ Understand the basic components (Readers, Antennas, Tags) and the operational principles of RFID technology ■ Present characteristic RFID applications and their benefits in a range of different fields (such as logistics, supply chain management, traceability, cold chain management, registration management) ■ Describe the middleware architecture of non-trivial RFID solutions, along with their main middleware building blocks (data collection, filtering, event routing, enterprise integration) ■ Learn about prominent RFID standards, notably from EPCGlobal (http://www.epcglobalinc.org). ■ Understand how to build non-trivial RFID solutions using open source RFID projects such as Fosstrak (http://www.fosstrak.org) and AspireRfid (http://wiki.aspire.ow2.org/) ■ Integrate an RFID solution into your enterprise ICT architecture ■ Leverage other sensors within your RFID solutions ■ Assess the techno-economic value of an RFID deployment ■ Assess the privacy implications of an RFID deployment (Privacy Impact Assessment) 																																									
Who should attend	<p>Cross industry participation (Banking, Manufacturing, Logistics, Trade, Government, ICT, Service, Airline) with interest in planning, developing, deploying, testing and/or assessing RFID solutions, including:</p> <ul style="list-style-type: none"> ■ Directors, CEO's ■ IT Managers and Consultants ■ Logistics Experts and Consultants ■ RFID Application Developers ■ RFID Consultants 																																									
Dates & Duration	<ul style="list-style-type: none"> ■ February 14,15,16 2012 ■ 3 days ■ 24 teaching hours 	<table border="1"> <thead> <tr> <th colspan="4">Class Daily Time Schedule</th> </tr> <tr> <th>H r</th> <th>Starts</th> <th>Ends</th> <th>Intervals</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>9:30</td> <td>10:15</td> <td></td> </tr> <tr> <td>2</td> <td>10:15</td> <td>11:00</td> <td>11:00-11:15</td> </tr> <tr> <td>3</td> <td>11:15</td> <td>12:00</td> <td></td> </tr> <tr> <td>4</td> <td>12:00</td> <td>12:45</td> <td>12:45-13:00</td> </tr> <tr> <td>5</td> <td>13:00</td> <td>13:45</td> <td></td> </tr> <tr> <td>6</td> <td>13:45</td> <td>14:30</td> <td>14:30-14:45</td> </tr> <tr> <td>7</td> <td>14:45</td> <td>15:30</td> <td></td> </tr> <tr> <td>8</td> <td>15:30</td> <td>16:15</td> <td></td> </tr> </tbody> </table>	Class Daily Time Schedule				H r	Starts	Ends	Intervals	1	9:30	10:15		2	10:15	11:00	11:00-11:15	3	11:15	12:00		4	12:00	12:45	12:45-13:00	5	13:00	13:45		6	13:45	14:30	14:30-14:45	7	14:45	15:30		8	15:30	16:15	
Class Daily Time Schedule																																										
H r	Starts	Ends	Intervals																																							
1	9:30	10:15																																								
2	10:15	11:00	11:00-11:15																																							
3	11:15	12:00																																								
4	12:00	12:45	12:45-13:00																																							
5	13:00	13:45																																								
6	13:45	14:30	14:30-14:45																																							
7	14:45	15:30																																								
8	15:30	16:15																																								
Instructors	Course Led by Dr Nikos Kefalakis, AIT																																									
Training Methodology	<ul style="list-style-type: none"> ■ Projects, Case studies ■ Programming, Exercises ■ Hands on Lab 																																									



Course outline	<ul style="list-style-type: none">■ Introduction to RFID Technology (components, operational principles)■ Prominent RFID Applications■ Introduction to RFID Middleware■ RFID Systems Architecture■ Filtering RFID Data and generating events■ The EPC Global Architecture and related standards (EPC-LLRP, EPC-ALE, EPC-IS)■ Generating RFID based business events■ Integrating an RFID solution into your enterprise ICT Architecture – Interfacing to ERP and WMS Systems■ Delivering Business Intelligence over RFID Data■ Building Solutions using Open Source RFID Middleware Projects - The AspireRfid Project (http://wiki.aspire.ow2.org/)■ Planning and Managing an RFID Project■ Assessing the Business Value of an RFID Solution (ROI/IRR for RFID Projects)■ Assessing the privacy implications of an RFID Solution■ Hands-on Sessions, Lab and Video Demonstrations:<ul style="list-style-type: none">○ RFID in Registration Management○ RFID in Logistics○ Mobile Low-Cost RFID Readers○ Simulating RFID Solutions
Expression of Interest	excedu@ait.gr please send your contact info, including program title in email subject line
Registration Form	http://hermes.ait.gr/registrations/multiple.php?prog=312
Venue	AIT, Building B7, INTRACOM Campus, 19 km, Markopoulou Av, Peania 190 02 How to Reach AIT: http://www.ait.edu.gr/ait_web_site/how_to_reach_us.jsp
Tuition Fee	Single Participation: € 790,00 This course is also available for in-house training for 4-10 participants @ competitive pricing OAED funding may reach up to 100%, for more information please contact us. Discount Policy Cancellation Policy
Contact	Katerina Protonotariou, Executive Education Manager, AIT, krpo@ait.gr , 210 6682806, extn 5806