The Abdus Salam International Centre for Theoretical Physics

# Second Workshop on Distributed Laboratory Instrumentation Systems

Organizer(s): A. Induruwa, U. Raich, C. Verkerk
Trieste - Italy, 20 October 2003 - 14 November 2003

**Venue: Adriatico Guest House Kastler Lecture Hall**

## Final programme

**Monday, 20 October** (Room:Adriatico Guest House Kastler Lecture Hall)

**20 October 2003**

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| **08:30 - 12:00** | **REGISTRATION - Kastler Lecture Hall Area**<br>IMPORTANT: AFTER THE REGISTRATION FORMALITIES, SPECIAL SHUTTLE BUS WILL TAKE GROUPS OF PARTICIPANTS TO ENRICO FERMI BULDING FOR COMPLETION OF FINANCIAL TRANSACTIONS. THE BUS WILL BE DEPARTING FROM THE ADRIATICO GUEST HOUSE PARKING LOT (LOBBY LEVEL) APPROXIMATELY EVERY 15 MINS STARTING AT 8.30 A.M. UNTIL NOON. VISITORS WHO WILL NEED TO REGISTER AFTER THE ABOVE MENTIONED TIME SLOT SHOULD DO SO IN THE SECRETARIAT OFFICE No. 2 (ADRIATICO GUEST HOUSE - ADJACENT KASTLER LECTURE HALL). |
| **12:00 - 12:30** | **C. VERKERK**<br>**OPENING AND COURSE OVERVIEW** |
| **12:30 - 14:00** | --- Lunch Break --- |
| **14:00 - 15:00** | **P. SANTAMARINA**<br>**Presentation of Distributed Laboratory Systems** |
| **15:00 - 16:00** | **C. VERKERK**<br>**Some Useful Linux Commands (1)** |
| **16:00 - 16:30** | --- Coffee Break ---<br>Kastler Lecture Hall Area |

**16:30 - 17:30** **C. KAVKA**
**Introduction to JAVA (1)**

**Tuesday, 21 October** (Room:Adriatico Guest House Kastler Lecture Hall)

**21 October 2003**

**09:00 - 10:00** **C. KAVKA**
**Introduction to JAVA (2)**

**10:00 - 11:00** **O. TYKHOMYROV**
**Object Oriented Programming Principles (1)**

**11:00 - 11:30** --- Coffe Break ---
Kastler Lecture Hall Area

**11:30 - 12:30** **C. VERKERK**
**Some Useful Linux Commands (2)**

**12:30 - 14:00** --- Lunch Break ---

**14:00 - 18:00** (Room: Adriatico Guest House Informatics Lab.)
**LABORATORY - LINUX Refresh**

**Wednesday, 22 October** (Room:Adriatico Guest House Kastler Lecture Hall)

**22 October 2003**

**09:00 - 10:00** **C. KAVKA**
**Introduction to JAVA (3)**

**10:00 - 11:00** **O. TYKHOMYROV**
**Object Oriented Programming Principles (2)**

**11:00 - 11:30** --- Coffee Break ---
Kaslter Lecture Hall Area

**11:30 - 12:30** **C. KAVKA**
**Introduction to JAVA (4)**

**12:30 - 14:00** --- Lunch Break ---

**14:00 - 18:00** (Room: Adriatico Guest House Informatics Lab.)
**LABORATORY - JAVA Exercises**

**Thursday, 23 October** (Room:Adriatico Guest House Kastler Lecture Hall)

**23 October 2003**

**09:00 - 10:00** **A.S. INDURUWA**
**Networking (1) - Introduction to Computer Networks**

**10:00 - 11:00** **C. KAVKA**
**Introduction to JAVA (5)**

**11:00 - 11:30** --- Coffee Break ---
Kastler Lecture Hall Area

**11:30 - 12:30** **C. KAVKA**
**Introduction to JAVA (6)**

**12:30 - 14:00** --- Lunch Break ---

**14:00 - 18:00** (Room: Adriatico Guest House Informatics Lab.)
**LABORATORY - JAVA Exercises**

## **Friday, 24 October** (Room:Adriatico Guest House Kastler Lecture Hall)

**24 October 2003**

**09:00 - 10:00** **C. KAVKA**
**Introductio to JAVA (7)**

**10:00 - 11:00** **A.S. INDURUWA**
**Networking (2) - TCP/IP Protocol Architecture**

**11:00 - 11:30** --- Coffee Break ---
Kastler Lecture Hall Area

**11:30 - 12:30** **Introduction to JAVA (8)**

**12:30 - 14:00** --- Lunch Break ---

**14:00 - 17:00** (Room: Adriatico Guest House Informatics Lab.)
**LABORATORY - JAVA Exercises**

**17:30 - 17:30** (Room: Main Building Main Lecture Hall)
--- UN Day Celebrations Ceremony ---

## **FREE TRIESTE CITY BUS TOUR** (**Saturday**)

**25 October 2003**

**00:00 - 00:00**

A Free Tour Around Trieste is being organized by The Trieste Tourism Promotion Board (Azienda di Promozione Turistica). Information on how to register for the tour as well as other relevant details are posted on bulletin board in front of the Adriatico Guest House Reception Desk. For further info please contact brady@ictp.trieste.it http://www.ictp.trieste.it/www_users/freetours/index.html

## **Monday, 27 October** (Room:Adriatico Guest House Kastler Lecture Hall)

**27 October 2003**

**09:00 - 10:00** **C.KAVKA**
**Introduction to JAVA (9)**

**10:00 - 11:00** **A.S. INDURUWA**
**Networking (3) - TCP/IP Protocol Architecture**

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| **11:00 - 11:30** | --- Coffee Break ---<br>Kastler Lecture Hall Area |
| **11:30 - 12:30** | **C. KAVKA**<br>**Introduction to JAVA (10)** |
| **12:30 - 14:00** | --- Lunch Break --- |
| **14:00 - 18:00** | (Room: Adriatico Guest House Informatics Lab.)<br>**LABORATORY - JAVA Exercises** |

**Tuesday, 28 October** (Room:Adriatico Guest House Kastler Lecture Hall)

**28 October 2003**

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| **09:00 - 10:00** | **J. WETHERILT**<br>**TINI Hardware & Software (1)** |
| **10:00 - 11:00** | **A.S. INDURUWA**<br>**Networking (4) - Network Programming in JAVA** |
| **11:00 - 11:30** | --- Coffee Break ---<br>Kastler Lecture Hall Area |
| **11:30 - 12:30** | **J. WETHERILT**<br>**TINI Hardware & Software (2)** |
| **12:30 - 14:00** | --- Lunch Break --- |
| **14:00 - 18:00** | (Room: Adriatico Guest House Informatics Lab.)<br>**LABORATORY - JAVA Exercises** |
| **18:00 - 18:00** | (Room: Adriatico Guest House Cafeteria)<br>--- SMALL RECEPTION --- |

**Wednesday, 29 October** (Room:Adriatico Guest House Kastler Lecture Hall)

**29 October 2003**

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| **09:00 - 10:00** | **J. WETHERILT**<br>**TINI Hardware & Software (3)** |
| **10:00 - 11:00** | **P. BARTHOLDI**<br>**Data Bases (1)** |
| **11:00 - 11:30** | --- Coffee Break ---<br>Kastler Lecture Hall Area |
| **11:30 - 12:30** | **J. WETHERILT**<br>**Our Legacy Equipment (1)** |
| **12:30 - 14:00** | --- Lunch Break --- |
| **14:00 - 17:30** | (Room: Adriatico Guest House Informatics Lab.)<br>**LABORATORY - Exercises with 1 Wire Devices** |

**17:30 - 18:15** **O. TYKHOMYROV - Chairman**
**Central European Initiative - CEI ROUND-TABLE**
Participants from: Belarus, Bulgaria, Hungary, Italy, Romania, Ukraine are invited to attend

**Thursday, 30 October** (Room:Adriatico Guest House Kastler Lecture Hall)

**30 October 2003**

**09:00 - 10:00** **J. WETHERILT**
**Instrumentation Techniques (1)**

**10:00 - 11:00** **P. BARTHOLDI**
**Data Bases (2)**

**11:00 - 11:30** --- Coffee Break ---
Kastler Lecture Hall Area

**11:30 - 12:30** **J. WETHERILT**
**Instrumentation Techniques (2)**

**12:30 - 14:00** --- Lunch Break ---

**14:00 - 18:00** (Room: Adriatico Guest House Informatics Lab.)
**LABORATORY - Exercises with 1 Wire Devices**

**Friday, 31 October** (Room:Adriatico Guest House Kastler Lecture Hall) (**in lieu of All Saints**)

**31 October 2003**

**09:00 - 10:00** **P. BARTHOLDI**
**Data Bases (3)**

**10:00 - 11:00** **QUESTIONS AND ANSWERS**

**11:00 - 11:30** --- Coffee Break ---
Kastler Lecture Hall Area

**11:30 - 12:30** **P. BARTHOLDI**
**Data Bases (4)**

**12:30 - 14:00** --- Lunch Break ---

**14:00 - 18:00** (Room: Adriatico Guest House Informatics Lab.)
**LABORATORY - Networking Exercises**

**Monday, 3 November** (Room:Adriatico Guest House Kastler Lecture Hall)

**3 November 2003**

**09:00 - 10:00** **U. RAICH**
**Distributed Control/Acquisition System with Legacy Devices**

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| **10:00 - 11:00** | **P. BARTHOLDI**<br>**Data Bases + Shell Programming** |
| **11:00 - 11:30** | --- Coffee Break ---<br>Kastler Lecture Hall Area |
| **11:30 - 12:30** | **C.S.ANG**<br>**Embedded Systems (1)** |
| **12:30 - 14:00** | --- Lunch Break --- |
| **14:00 - 18:00** | (Room: Adriatico Guest House Informatics Lab.)<br>**LABORATORY - Interfacing Legacy Devices using RS232 Serial Connection** |

**Tuesday, 4 November** (Room:Adriatico Guest House Kastler Lecture Hall)

**4 November 2003**

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| **09:00 - 10:00** | **C.S. ANG**<br>**Embedded Systems (2)** |
| **10:00 - 11:00** | **U. RAICH**<br>**Graphical User Interface Programming (1)** |
| **11:00 - 11:30** | --- Coffee Break ---<br>Kastler Lecture Hall Area |
| **11:30 - 12:30** | **C.S. ANG**<br>**Embedded Systems (3)** |
| **12:30 - 14:00** | --- Lunch Break --- |
| **14:00 - 18:00** | (Room: Adriatico Guest House Informatics Lab.)<br>**LABORATORY - SQL Exercises** |

**Wednesday, 5 November** (Room:Adriatico Guest House Kastler Lecture Hall)

**5 November 2003**

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| **09:00 - 10:00** | **C.S. ANG**<br>**Embedded Systems (4)** |
| **10:00 - 11:00** | **U. RAICH**<br>**Graphical User Interface Programming (2)** |
| **11:00 - 11:30** | --- Coffee Break ---<br>Kastler Lecture Hall Area |
| **11:30 - 12:30** | **C.S.ANG**<br>**Embedded Systems (5)** |
| **12:30 - 14:00** | --- Lunch Break --- |
| **14:00 - 18:00** | (Room: Adriatico Guest House Informatics Lab.)<br>**LABORATORY - HTML/DHTML Exercises** |

**Thursday, 6 November** (Room:Adriatico Guest House Kastler Lecture Hall)

**6 November 2003**

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| **09:00 - 10:00** | **C.S. ANG**<br>**Embedded Systems (6)** |
| **10:00 - 11:00** | **U. RAICH**<br>**Graphical User Interface Programming (3)** |
| **11:00 - 11:30** | --- Coffee Break ---<br>Kastler Lecture Hall Area |
| **11:30 - 12:30** | **U. RAICH**<br>**Graphical User Interface Programming (4)** |
| **12:30 - 14:00** | --- Lunch Break --- |
| **14:00 - 15:30** | (Room: Adriatico Guest House Informatics Lab.)<br>**LABORATORY - Building Static GUIs** |

**Friday, 7 November** (Room:Adriatico Guest House Kastler Lecture Hall)

**7 November 2003**

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| **09:00 - 10:00** | **C.S. ANG**<br>**Embedded Systems (7)** |
| **10:00 - 11:00** | **U. RAICH**<br>**Graphical User Interface Programming (5)** |
| **11:00 - 11:30** | --- Coffee Break ---<br>Kastler Lecture Hall Area |
| **11:30 - 12:30** | **C.S. ANG**<br>**Embedded Systems (8)** |
| **12:30 - 14:00** | --- Lunch Break --- |
| **14:00 - 18:00** | (Room: Adriatico Guest House Informatics Lab.)<br>**LABORATORY - Events and Dynamic GUIs** |

**Monday, 10 November** (Room:Adriatico Guest House Kastler Lecture Hall)

**10 November 2003**

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| **09:00 - 10:00** | **U. RAICH**<br>**Graphical User Interface Programming (6)** |
| **10:00 - 11:00** | **C. VERKERK**<br>**Real-Time Operating Systems(1)** |

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| **11:00 - 11:30** | --- Coffee Break ---<br>Kastler Lecture Hall Area |
| **11:30 - 12:30** | **U. RAICH**<br>**Application (Beans)** |
| **12:30 - 14:00** | --- Lunch Break --- |
| **14:00 - 18:00** | (Room: Adriatico Guest House Informatics Lab.)<br>**LABORATORY - Developing Beans** |

**Tuesday, 11 November** (Room:Adriatico Guest House Kastler Lecture Hall)

**11 November 2003**

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| **09:00 - 10:00** | **P. SANTAMARINA**<br>**Embedded Linux (1)** |
| **10:00 - 11:00** | **C. VERKERK**<br>**Real-Time Operating Systems (2)** |
| **11:00 - 11:30** | --- Coffee Break ---<br>Kastler Lecture Hall Area |
| **11:30 - 12:30** | **P. SANTAMARINA**<br>**Embedded Linux (2)** |
| **12:30 - 14:00** | --- Lunch Break --- |
| **14:00 - 18:00** | (Room: Adriatico Guest House Informatics Lab.)<br>**LABORATORY - Integration to Net Beans** |

**Wednesday, 12 November** (Room:Adriatico Guest House Kastler Lecture Hall)

**12 November 2003**

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| **09:00 - 10:00** | **A.S. INDURUWA**<br>**Networking (5) - Future Trends in Networking** |
| **10:00 - 11:00** | **C. VERKERK**<br>**Real-Time Operating Systems (3)** |
| **11:00 - 11:30** | --- Coffee Break ---<br>Kastler Lecture Hall Area |
| **11:30 - 12:30** | **O. TYKHOMYROV**<br>**Install & Configure Linux (1)** |
| **12:30 - 14:00** | --- Lunch Break --- |
| **14:00 - 18:00** | (Room: Adriatico Guest House Informatics Lab.)<br>**LABORATORY - Data Logger** |

**Thursday, 13 November** (Room:Adriatico Guest House Kastler Lecture Hall)

**13 November 2003**

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| **09:00 - 11:00** | **PARTICIPANTS**<br>**Case Studies** |
| **11:00 - 11:30** | --- Coffee Break ---<br>Kastler Lecture Hall Area |
| **11:30 - 12:30** | **LABORATORY - Integration of Components in to a Distributed System** |
| **12:30 - 14:00** | --- Lunch Break --- |
| **14:00 - 18:00** | (Room: Adriatico Guest House Informatics Lab.)<br>**LABORATORY - Integration of Components in to a Distributed System** |

**Friday, 14 November** (Room:Adriatico Guest House Informatics Lab.)

**14 November 2003**

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| **09:00 - 12:30** | **LABORATORY - Integration of Components in to a Distributed System** |
| **11:00 - 11:30** | --- Coffee Break ---<br>Kastler Lecture Hall Area |