

出國報告（出國類別：參加國際會議）

## 參加 2014 年 SAS 國際研討會議

會議名稱：

**2014 年國際感測器應用研討會**

**2014 IEEE Sensors Applications  
Symposium(SAS2014)**

服務單位： 國立暨南國際大學

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派赴國家：紐西蘭 皇后鎮(Queenstown, New Zealand)

出國期間：2014 年 02 月 13 日至 02 月 22 日

報告日期：2014 年 05 月 22 日

## 摘要

此次於2014年02月13日到02月22日至紐西蘭皇后鎮參加，2014國際感測器應用研討會，會議簡稱SAS2014，主要任務是發表一篇論文。SAS2014主旨在於提供科學家、工程師、研究人員、開發人員以及終端用戶透過正式的技術展示交流討論的論壇，題目可分為感測器和感測器應用領域。會議中聚集來自世界各地的專家學者，安排兩位知名學者演講，並且提供一個平台讓學者們發表與溝通學術成果。也藉此鼓勵研究人員多走向國際，努力研究以獲得國際肯定。本會議由電機電子工程師學會(IEEE)主辦，感測器應用研討會(Sensors Applications Symposium)承辦，此會議涵蓋計算機科學與資訊技術、電子與通訊工程、電子工程、感測器、微機電系統等，入選論文將納入到電機電子工程師學會儀表及量測會刊(IEEE Transactions on Instrumentation & Measurement)，此行參加會議難得機會與世界各地專家學者進行交流。

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## 目的

這次2014國際感測器應用研討會會議，由指導教授孫台平博士帶隊參加，會議主要是提供國際間研究人員提出各自技術的最新研究進展和未來的挑戰，在感測器與感測器應用領域及發展提供一個交流及討論的平台，對於本人研究電機電子及微控制器領域有很大的幫助，且此會議於紐西蘭皇后鎮(Queenstown, New Zealand)舉辦，世界各地感測器和感測器應用領域的專家學者齊聚在會場，於本人所發表的論文進行提問與探討，此次發表題目「陣列式讀取電路與系統設計與實現於電流式感測器(Design and Implementation of Array Readout Integrated Circuit and Image System for Current Mode Sensors)」，內容主要以電流式感測器、後段的A/D、影像電路提供了一個完整的規劃及製作，透過研討會方式與世界各地專家學者進行學術及研究交流，並可更了解未來技術趨勢技術，入選論文將納入到電機電子工程師學會儀表及量測會刊(IEEE Transactions on Instrumentation & Measurement)。

## 參加會議經過及紀要

2014 國際感測器應用研討會會議(SAS2014)會議由電機電子工程師學會(IEEE)主辦，感測器應用研討會(Sensors Applications Symposium)承辦，會議涵蓋計算機科學與資訊技術、電子與通訊工程、電子工程、感測器、微機電系統等，今年於 02 月 18-20 日在紐西蘭皇后鎮瑞德斯萊克蘭度假村(Rydges Lakeland Resort, Queenstown, New Zealand)舉辦，會議時間為期 3 天，會議包含專家演講、論文發表等會議議程，涵蓋感測器和感測器應用相關領域。今年於 02 月 18-20 日在紐西蘭皇后鎮瑞德斯萊克蘭度假村(Rydges Lakeland Resort, Queenstown, New Zealand)舉辦，會議時間為期 3 天，會議包含專家演講、論文發表等會議議程，涵蓋感測器和感測器應用相關領域，相關行程如表 1 所列：

表 1. SAS2014 國際研討會行程概要

02 月 13-14 日(四、五)	臺灣桃園國際機場出發，抵達紐西蘭基督城國際機場，途經新加坡樟宜國際機場轉機。
02 月 15-16 日(六、日)	紐西蘭基督城轉搭汽車前往南端皇后鎮
02 月 17 日(一)	了解會議相關地點並準備會議報告資料整理。
02 月 18 日(二)	參加 SAS2014 國際研討會，報到手續，並於 15:20-17:00”Sensor Array and Multisensor Data Fusion”議程擔任第一位報告人。
02 月 19 日(三)	參與 SAS2014 國際研討會，旁聽其他相關議程演說。
02 月 20 日(四)	1. 參與 SAS2014 國際研討會，旁聽第三天會議議程演說。 2. 大會頒發”Student Travel Grant”獎項。 3. 並由皇后鎮轉機前往奧克蘭等待回國班機。
02 月 21-22 日(五、六)	紐西蘭奧克蘭國際機場出發，抵達臺灣桃園國際機場，途經新加坡樟宜國際機場轉機。

## 02 月 18 日(會議第一天)

辦理完會議報到手續後，參與 2014 國際感測器應用研討會會議於紐西蘭皇后鎮瑞德斯萊克蘭度假村會議廳之開幕式，在開幕典禮中(10:00 A.M.-12:10 P.M.)首先由特邀演講者(Keynote Speaker) Alan Finkel 博士演說「自然的奈米機器中離子流電流應用於開發新藥品之階段“Characterisation of currents in nature’s ion-flow nanomachines underpins development of new medicines”」，Alan Finkel 博士是莫納什大學(Monash University)校長及澳大利亞技術科學及工程學院(Australian Academy of Technological Sciences and Engineering, ATSE)主席，演說中探討人體中自然的離子流電流的產生，並提出可應用方向。

在開幕典禮專題演講後，正式進行研討會之相關專題報告(10:30 A.M.-12:10 P.M.)，會議時程安排同時段會有兩個議程進行，此時段為「多電磁感測器系統(Systems with Multiple Electromagnetic Sensors)」與「無損評估及遠端感測(Nondestructive Evaluation and Remote Sensing)」，選擇多電磁感測器

系統領域專題聆聽，來自加拿大 McGill University 的 E. Porter、A. Santorelli 及 M. Popović 報告「差動雷達不確定性量測應用於乳房成像(Measurement Uncertainties in Differential Radar Applied to Breast Imaging)」提到使用一個包含 16 個感測器陣列的雷達系統，用於產生乳房圖像，並確定乳房腫瘤檢測與感測圖像品質的影響，探討橫向與縱向雜訊補償之影響。

在 1:20 P.M.-3:00 P.M.的「感測網路運算效益(Efficient Sensor Network Processing)」及「感測器應用於生醫領域(Sensors in Biomedical Applications)」，選擇感測器應用於生醫領域專題聆聽，來自中國 University of Science and Technology of China 的 Wei Hu 和 Haiying Zhang 以及 Institute of Microelectronics of CAS 的 Zhangyan Zhao、Yunfeng Wang 與 Xize Wang 報告「使用可攜式杜普勒感測器系統即時遠端監測生理訊號(Real-time remote vital sign detection using a portable Doppler sensor system)」提到利用微波杜普勒雷達感測器可以精確偵測受測者心肺活動，並將感測器系統集成一個可攜式裝置，能提供遠程監控受測者的生命體徵功能，與心電圖(ECG)進行比較，偵測心跳速率的均方誤差為 0.46。

在 3:20 P.M.-5:00 P.M.時段的「感測器陣列及多個感測器數據融合(Sensor Array and Multisensor Data Fusion)」議程，學生擔任首位發表，此次論文發表方式為口頭簡報，並接受主席與會人員的提問並相互討論之，發表論文題目為「陣列式讀取電路與系統設計與實現於電流式感測器(Design and Implementation of Array Readout Integrated Circuit and Image System for Current Mode Sensors)」，內容主要以前端電流式感測器、後段的類比數位轉換及影像電路提供了一個完整的規劃及製作，過程中主席及與會學者提問幾項問題關於感測器設計方式、數據處理及應用方向，問答中得到許多意見與想法，也能看出研究成果之於他國學者的創新性與價值，預期在未來設計及研究時激發更新穎之方向，以提出及研究更實用及更有價值構想與電路設計，透過此方式激勵新的思維與概念，能多方向考量系統特性設計與實用性。

## 02 月 19 日(會議第二天)

會議第二天中，首先開始的專題議程是 10:20 A.M.-12:00 P.M.的「環境與農業科技相關感測器 I(Environmental and Agritech Related Sensors I)」與「微米

與奈米感測器 I(Micro and Nano-Sensors I)」，選擇微米與奈米感測器專題聆聽，來自義大利 University of Catania 的 Bruno Andò、Salvatore Baglio、Cristian O. Lombardo 與 V. Marletta 報告「噴墨列印感測器用於負載測量(An inkjet printed sensor for load measurement)」提到在低成本的直接列印技術中，感測器扮演了一個重要的角色，負載感測器是基於叉指式的電容傳感器，印刷在軟性 PET 基板上，而實驗結果感測器的解析度為 0.8g。

1:20 P.M.-2:40 P.M.則是「基於視覺應用的計算機視覺及機器學習(Computer Vision and Machine Learning for Vision Based Applications, Organized by TC-32 (Fault-Tolerant Measurement Systems) of IEEE I&M Society)」與「磁性感測器及應用(Magnetic Sensors and Applications)」，在磁性感測器及應用議程中，來自越南 University of Engineering and Technology 及 Vietnam National University 的 Hang Bui Thu 與 Trinh Chu Duc 報告「微流噴射模擬結合表面聲波感測器應用於 3D 集成」提到結合表面聲波裝置(SAW)之 3D 系統，具有許多優點，例如靈敏度，且與 CMOS 技術相容。

## 02 月 20 日(會議第三天)

會議第三天中，首先開始的議程是 9:00 A.M.-10:20 A.M.的「感測器應用於機器人與自動化 II(Sensors Applications in Robotics and Automation II)」和「無線感測器網路 I(Wireless Sensor Networks I)」，選擇無線感測器網路議程聆聽，來自義大利 University of Brescia 的 L. Berghella、A. Depari、P. Ferrari、A. Flammini、S. Rinaldi、E. Sisinni 與 A. Vezzoli 報告「低功率無線介面應用於手持式智能量測裝置(Low-power wireless interface for handheld smart metering devices)」提到智能量測裝置的優點：更能掌握裝置資源的使用狀況，精準的計算帳單並能讓用戶更好的編列預算，而在此情況下，無線的便利性被提出來討論，在有限的電源下，低功率消耗將是無線傳輸與智能量測裝置的最佳結合方案。

11:00 A.M.-12:40 P.M.的議程是「無線感測器網路 II(Wireless Sensor Networks II)」及「感測器與系統應用於急救及第一時間回報(Sensors and Systems for Emergency and First Response)」，選擇無線感測器議程聆聽，來自

日本 Tokyo University 的 Akihito Noda、Masahiro Hirano、Yuji Yamakawa 和 Masatoshi Ishikawa 報告「網路高速視覺系統應用於車輛辨識(A Networked High-Speed Vision System for Vehicle Tracking)」提出高速移動物體在多台監視器網路間移動的偵測系統，最直覺的應用是追蹤車輛從高速公路入口到出口，連續追蹤而不丟失，這樣的系統可以用於偵測交通阻塞或事故的分析，而作者開發了一個原型系統，可以每秒捕捉移動中車輛 1000 幀，並可以追蹤時速 100Km 的移動物體。

在研討會議程圓滿完成後，主辦單位宣布優秀論文獲獎論文，獎項共有 1. 最佳論文獎(Best Paper Award)兩名，2. 學生旅遊補助(Student Travel Grants)五名，學生所發表之論文非常榮幸，獲得主辦單位及評審青睞，榮獲學生旅遊補助獎項(如附件所示)。

## 感想及建議

參加這次在紐西蘭皇后鎮所舉行之國際感測器應用研討會會議 (SAS2014)，從會議地點選擇，會場的安排至佈置，以及不同主題內容場次的安排，就能體會主辦單位之專業及用心。此次會議囊括許多重要的感測器領域議題，在孫台平老師的指導及與會者的交流下，了解各國專家如何組織新的領域方向及研究題目並加強自己思考與實踐之能力，在準備報告之過程中，不僅可以提升英文應用與報告能力，並同時砥礪自己思考未來研究之方向，藉由其他學者所提出發問之內容，了解研究上所忽略之細節問題，確立未來於研究內容上能擁有更多更寬廣之實現空間。

此次 SAS2014 國際研討會，主辦單位評選論文相當嚴謹，全球總共挑選 76 篇文章刊登，並且要求投稿作者必須口頭簡報方式發表，全臺灣僅有 3 篇論文接受刊登，而本篇是唯一一篇學校學生參與發表，另外 2 篇是 1. 國家晶片系統設計中心(CIC)、2. 國家實驗研究院國家高速網路與計算中心(NCHC)，



這是一次難得的經驗，能夠參與發表並榮獲獎項是對學生研究方向及成果的肯定。

對於碩博士生而言，出席國際會議及發表文章不但可以增廣見聞，實質上對於研究工作是有相當大的幫助。會議中除了可以結識許多優秀國際友人，也可以了解國際趨勢增添研究變化性與實用性，藉以提升學校名氣在國際場合中的能見度，達成學校研究學習國際化目標。因此希望能夠提供更多資源在經費補助與研發上，並降低學生負擔並增加投稿發表的吸引力。最後，感謝此次學校提供補助研究生出席國際會議的補助。

## 攜回資料名稱及內容

此次會議攜帶回來許多資料，包括了 SAS2014 會議論文集以及其它會議相關資料，部份資料尚未完全公佈於網路上提供下載，對於研究生而言可以提早閱讀到這些珍貴資料以增加新的想法。

## 附錄

會議照片：



1. 會議場地: 紐西蘭皇后鎮瑞德斯萊克蘭度假村(Rydges Lakeland Resort, Queenstown, New Zealand)



2. 會議場地:會議開始前與指導教授孫台平老師合照



3. 會議場地:會議報到處與指導教授孫台平老師合照



4. 會議場地:於論文發表之會議廳



5. 論文發表:口頭簡報並接受與會學者



6. 得獎證書:獲頒學生旅遊補助獎項

提問

## 會議流程表

<b>Tuesday, February 18 (2/18 星期二)</b>	
<b>09:00 - 09:10</b> <b>Opening Remarks (開幕典禮)</b> <b>Room: Queenstown Room</b>	
<b>09:10 - 10:10</b> <b>Keynote Speaker: Dr. Alan Finkel (特邀演講)</b> <b>Characterization of currents in nature's ion-flow nanomachines underpins development of new medicines</b> <b>Chair: Serge Demidenko (Massey University, New Zealand)</b> <b>Room: Queenstown Room</b>	
<b>10:10 - 10:30</b>	<b>Morning Break (早晨休息)</b>
<b>10:30 - 12:10</b> <b>Special Session: Systems with Multiple Electromagnetic Sensors</b> <b>Session Chairs: Vedran Bilas (University of Zagreb, Croatia)</b> <b>Mohd Zaid Abdullah (University Sains Malaysia)</b> <b>Room: Queenstown Room</b>	
<b>10:30</b>	<b>Wide-Slot Antenna for Breast Imaging Applications</b> S.S. Tiang (Universiti Sains Malaysia, Malaysia) M.S. Hathal (University Sains Malaysia, Malaysia) N.S. Nik Anwar (Universiti Sains Malaysia, Malaysia) M.F. Ain (Universiti Sains Malaysia, Malaysia) M.Z. Abdullah (Universiti Sains Malaysia, Malaysia)
<b>10:50</b>	<b>Measurement Uncertainties in Differential Radar Applied to Breast Imaging</b> E. Porter (McGill University, Canada) A. Santorelli (McGill University, Canada) M. Popović (McGill University, Canada)

<b>11:10</b>	<p><b>Contactless Determination of Gas Concentration and Pressure Based on a Low Jitter mmWave FMCW Radar</b></p> <p>Christoph Baer (Institute of Electronic Circuits, Ruhr-University Bochum, Germany)</p> <p>Thomas Musch (Institute of Electronic Circuits, Ruhr-University Bochum, Germany)</p> <p>Timo Jaeschke (Institute for Integrated Systems, Ruhr-University Bochum, Germany)</p> <p>Nils Pohl (Fraunhofer FHR, Germany)</p>
<b>11:30</b>	<p><b>Simple Linear Inversion of Soil Electromagnetic Properties from Analytical Model of Electromagnetic Induction Sensor</b></p> <p>Darko Vasić (University of Zagreb, Croatia)</p> <p>Davorin Ambruš (University of Zagreb, Croatia)</p> <p>Vedran Bilas (University of Zagreb, Croatia)</p>
<b>11:50</b>	<p><b>A Water Content Sensor for Baked Products</b></p> <p>Ian Woodhead (Lincoln Agritech Limited, New Zealand)</p> <p>John Christie (Lincoln Agritech Limited, New Zealand)</p> <p>Kenji Irie (Lincoln Agritech Limited, New Zealand)</p> <p>Richard Fenton (Automation Design Limited, New Zealand)</p>
<p><b>10:30 - 12:10</b></p> <p><b>Nondestructive Evaluation and Remote Sensing</b></p> <p><b>Session Chair: Salvatore Baglio (University of Catania, Italy)</b></p> <p><b>Room: Clancys Room</b></p>	
<b>10:30</b>	<p><b>Structural Health Monitoring of Bridges Using Cost-Effective 1- axis Accelerometers</b></p> <p>Chih-Hsing Lin (National Chip Implementation Center, Taiwan)</p> <p>Ssu-Ying Chen (National Chip Implementation Center, Taiwan)</p> <p>Chih-Chyau Yang (National Chip Implementation Center, Taiwan)</p>

	<p>Chien-Ming Wu (National Chip Implementation Center, Taiwan)</p> <p>Chun-Ming Huang (National Chip Implementation Center, Taiwan)</p> <p>Chih-Ting Kuo (National Chip Implementation Center, Taiwan)</p> <p>Yu-Da Huang (National Chip Implementation Center, Taiwan)</p>
<b>10:50</b>	<p><b>Development of a Frequency-Shifted Feedback Fiber Laser at 777.5 nm for Range Sensing Applications</b></p> <p>Michael Hofbauer (Vienna University of Technology, Austria)</p> <p>Johannes Seiter (Vienna University of Technology, Austria)</p> <p>Horst Zimmermann (Vienna University of Technology, Austria)</p>
<b>11:10</b>	<p><b>Solar Panel Sensor Modeling and Fiscal Modeling</b></p> <p>Steven T. Griffin (University of Memphis, USA)</p> <p>Thomas E. Wyatt (University of Memphis, USA)</p>
<b>11:30</b>	<p><b>2-D Vector Field Visualization of Corrosion in a Small-bore Piping System using Bobbin-type Integrated Hall and GMR Sensors Arrays</b></p> <p>Minhhuy Le (Chosun University, Korea)</p> <p>Hwa Sik Do (KEPCO Plant Service &amp; Engineering Co., LTD, Korea)</p> <p>Jungmin Kim (Chosun University, Korea)</p> <p>Jinyi Lee (Chosun University, Korea)</p>
<b>11:50</b>	<p><b>Non-Destructive Evaluation of Far-Side Corrosion around the Multi-Layered Rivet by using the Solid-State Hall Sensor Array</b></p> <p>Jungmin Kim (Chosun University, Korea)</p> <p>Jinyi Lee (Chosun University, Korea)</p> <p>Minhhuy Le (Chosun University, Korea)</p>
<b>12:10 - 13:20</b>	<b>Lunch(午餐)</b>
<b>13:20 – 15:00</b>	

<p><b>Special Session: Efficient Sensor Network Processing</b></p> <p><b>Session Chair: Matthias Vodel (Chemnitz University of Technology, Germany)</b></p> <p><b>Room: Queenstown Room</b></p>	
<p><b>13:20</b></p>	<p><b>Modelling, Quantification, Optimisation - Energy Efficiency in Distributed, Embedded Systems</b></p> <p>Matthias Vodel (Chemnitz University of Technology, Germany)</p> <p>René Bergelt (Chemnitz University of Technology, Germany)</p> <p>Wolfram Hardt (Chemnitz University of Technology, Germany)</p>
<p><b>13:40</b></p>	<p><b>Energy Efficient Handling of Big Data in Embedded, Wireless Sensor Networks</b></p> <p>René Bergelt (Chemnitz University of Technology, Germany)</p> <p>Matthias Vodel (Chemnitz University of Technology, Germany)</p> <p>Wolfram Hardt (Chemnitz University of Technology, Germany)</p>
<p><b>14:00</b></p>	<p><b>FPGA-based Approach for Runway Boundary Detection in High-resolution Colour Images</b></p> <p>Stephan Blokzyl (Chemnitz University of Technology, Germany)</p> <p>Matthias Vodel (Chemnitz University of Technology, Germany)</p> <p>Wolfram Hardt (Chemnitz University of Technology, Germany)</p>
<p><b>14:20</b></p>	<p><b>Distributed Detection in Neural Network based Multihop Wireless Sensor Network</b></p> <p>Jabal Raval (TCS Innovation Labs Mumbai, Tata Consultancy Services, India)</p> <p>Bhushan Jagyasi (TCS Innovation Labs Mumbai, Tata Consultancy Services, India)</p>
<p><b>14:40</b></p>	<p><b>Investigation into the Impact of Protocol Design on Energy Consumption of Low Power Wireless Sensors</b></p> <p>Debraj Basu (Massey University, New Zealand)</p> <p>Gourab Sen Gupta (Massey University, New Zealand)</p> <p>Giovanni Moretti (Massey University, New Zealand)</p>

	Xiang Gui (Massey University, New Zealand)
<b>13:20 – 15:00</b> <b>Sensors in Biomedical Applications</b> <b>Session Chair: Alessandra Flammini (University of Brescia, Italy)</b> <b>Room: Clancys Room</b>	
<b>13:20</b>	<b>A Compact Back-Plaster Sensor Node for Dementia and Alzheimer Patient Care</b> Andre Schwarzmeier (Institute for Electronics Engineering, University of Erlangen- Nuremberg, Germany) Jürgen Besser (Wilhelm Löhe Hochschule, Germany) Robert Weigel (Institute for Electronics Engineering, University of Erlangen- Nuremberg, Germany) Georg Fischer (Institute for Electronics Engineering, University of Erlangen- Nuremberg, Germany) Dietmar Kissinger (Institute for Electronics Engineering, University of Erlangen- Nuremberg, Germany)
<b>13:40</b>	<b>High Inductance Coil Embedded On On-chip Magnetic Sensor for Biomagnetism Measurements</b> HyunJune Lyu (Kyungpook National University, Korea) Yun Sik Bae (Kyungpook National University, Korea) Vijith Vijayakumaran Nair (Kyungpook National University, Korea) Jun Rim Choi (Kyungpook University, Korea)
<b>14:00</b>	<b>Acquisition and Elaboration of Cardiac Signal in Android Smartphone Devices</b> C.M. De Dominicis (University of Brescia, Italy) A. Depari (University of Brescia, Italy) A. Flammini (University of Brescia, Italy) S. Rinaldi (University of Brescia, Italy) E. Sisinni (University of Brescia, Italy)

	A. Vezzoli (University of Brescia, Italy)
<b>14:20</b>	<p><b>Real-time remote vital sign detection using a portable Doppler sensor system</b></p> <p>Wei Hu (University of Science and Technology of China, P.R. China)</p> <p>Haiying Zhang (University of Science and Technology of China, P.R. China)</p> <p>Zhangyan Zhao (Institute of Microelectronics of CAS, P.R. China)</p> <p>Yunfeng Wang (Institute of Microelectronics of CAS, P.R. China)</p> <p>Xize Wang (Institute of Microelectronics of CAS, P.R. China)</p>
<b>14:40</b>	<p><b>Patch Type Integrated Sensor System for Measuring Electrical and Mechanical Cardiac Activities</b></p> <p>Eunjeh Hyun (Seoul National University, Korea)</p> <p>Seungwoo Noh (Seoul National University, Korea)</p> <p>Chiyul Yoon (Seoul National University, Korea)</p> <p>Hee Chan Kim (Seoul National University, Korea)</p>
<b>15:00 - 15:20</b>	<b>Afternoon Break (午後休息)</b>
<p><b>15:20 – 17:00</b></p> <p><b>Sensors and Systems for Homeland Security</b></p> <p><b>Session Chair: Donald Bailey (Massey University, New Zealand)</b></p> <p><b>Room: Queenstown Room</b></p>	
<b>15:20</b>	<p><b>Probabilistic Method to Determine Human Subjects for Low-Resolution Thermal Imaging Sensor</b></p> <p>Yongwoo Jeong (Samsung S1 Corporation, South Korea)</p> <p>Kwanwoo Yoon (Samsung S1 Corporation, South Korea)</p> <p>KyoungHo Joung (Samsung S1 Corporation, South Korea)</p>
<b>15:40</b>	<p><b>Two-Frequency Surveillance Technique for Intrusion-Detection Sensor with Leaky Coaxial Cables</b></p>



	<p>Kenji Inomata (Mitsubishi Electric Corp., Japan)  Wataru Tsujita (Mitsubishi Electric Corp., Japan)  Takashi Hirai (Mitsubishi Electric Corp., Japan)</p>
<b>16:00</b>	<p><b>Emergency Management through Sensors of Enterprise Systems</b></p> <p>Deniz Gurkan (University of Houston, USA)  Kiran Vemuri (University of Houston, USA)  Parth Gala (University of Houston, USA)  Anatoliy Malishevski (University of Houston, USA)  Anand Daga (University of Houston, USA)</p>
<b>16:20</b>	<p><b>High-Resolution Measurement of Magnetic Field Generated from Cryptographic LSIs</b></p> <p>Nguyen Ngoc Mai-Khanh (VLSI Design and Education Center (VDEC), The University of Tokyo, Japan)  Tetsuya Iizuka (The University of Tokyo, Japan)  Akihiko Sasaki (Morita-Tech Co., Ltd, Japan)  Makoto Yamada (Morita-Tech Co., Ltd, Japan)  Osamu Morita (Morita-Tech Co., Ltd, Japan)  Kunihiro Asada (VLSI Design and Education Center (VDEC), The University of Tokyo, Japan)</p>
<b>16:40</b>	<p><b>A Novel Cataluminescence (CTL) Sensor System Based on Two Sensing Units to Detect and Distinguish Ketone Vapors</b></p> <p>Ruiya Xing (Guangzhou University, P.R. China)  Xiaoan Cao (Guangzhou University, P.R. China)  Ling Xu (Guangzhou University, P.R. China)  Zhengni Wang (Guangzhou University, P.R. China)  Yonghui Liu (Guangzhou University, P.R. China)</p>
<p><b>15:20 – 17:00</b></p> <p><b>Sensor Array and Multisensor Data Fusion</b></p> <p><b>Session Chairs: Vedran Bilas (University of Zagreb, Croatia)</b></p>	

<b>Mohd Zaid Abdullah (University Sains Malaysia)</b>	
<b>Room: Clancys Room</b>	
<b>15:20</b>	<p><b>Design and Implementation of Array Readout Integrated Circuit and Image System for Current Mode Sensors</b></p> <p>Tai Ping Sun (National Chi Nan University Nantou County, &amp; Nan Kai University of Technology Nantou County, Taiwan)</p> <p>Jia-Hao Li (National Chi Nan University Nantou County, Taiwan)</p> <p>Hsiu-Li Shieh (National Chi Nan University Nantou County, Taiwan)</p> <p>Lai-Li Kang (National Chi Nan University Nantou County, Taiwan)</p> <p>Yi-Chuan Lu (National Chi Nan University Nantou County, Taiwan)</p> <p>Teng-Yi Wang (National Chi Nan University, Taiwan)</p>
<b>15:40</b>	<p><b>Expansion of Sound Source Emphasis to Multiple Areas</b></p> <p>Marco Politakis (University of Canterbury, New Zealand)</p> <p>Yusuke Hioka (University of Canterbury, New Zealand)</p>
<b>16:00</b>	<p><b>Localisation of a Sound Source in Different Positions Using Kinect Sensors</b></p> <p>Jason Orchard (University of Canterbury, New Zealand)</p> <p>Y Hioka (University of Canterbury, New Zealand)</p>
<b>16:20</b>	<p><b>Power Sensor Applications in a Load Management Network for a Residential Microgrid</b></p> <p>Philip Diefenderfer (Bucknell University, USA)</p> <p>Peter Mark Jansson (Bucknell University, USA)</p>
<b>16:40</b>	<p><b>An Advanced Tracking Solution Fully Based on Native Sensing Features of Smartphone</b></p> <p>Bruno Andò (University of Catania, Italy)</p> <p>Salvatore Baglio (University of Catania, Italy)</p>

	<p>Cristian O. Lombardo (University of Catania, Italy)</p> <p>V. Marletta (University of Catania, Italy)</p>
<p><b>Wednesday, February 19 (2/19 星期三)</b></p>	
<p><b>08:15 - 09:00</b></p> <p><b>Workshop Tutorial</b></p> <p><b>Room: Wakatipu Room</b></p>	
<p><b>09:00 - 10:00</b></p> <p><b>Plenary Speaker: Commander Blake McBride</b></p> <p><b>An Overview of ONR Global's Science Support Tools and an update on the renewed Arctic focus</b></p> <p><b>Session Chair: Salvatore Baglio (University of Catania, Italy)</b></p> <p><b>Room: Queenstown Room</b></p>	
<p><b>09:00 - 11:30</b></p> <p><b>Sensor Application Development Workshop</b></p> <p><b>Room: Wakatipu Room</b></p>	
<b>10:00 - 10:20</b>	<b>Morning Break(早晨休息)</b>
<p><b>10:20 – 12:00</b></p> <p><b>Special Session: Environmental and Agritech Related Sensors I</b></p> <p><b>Session Chairs: Ian Woodhead (Lincoln Agritech Limited, New Zealand)</b></p> <p><b>Ian Platt (Lincoln Agritech, Limited, New Zealand)</b></p> <p><b>Room: Queenstown Room</b></p>	
<b>10:20</b>	<p><b>Free-Space Microwave Moisture Content Measurement of Moist Sand</b></p> <p>Sean Richards (Lincoln Agritech Limited, New Zealand)</p> <p>Adrian Tan (Lincoln Agritech Limited, New Zealand)</p> <p>Ian G Platt (Lincoln Agritech Limited, New Zealand)</p> <p>Ian M Woodhead (Lincoln Agritech Limited, New Zealand)</p>
<b>10:40</b>	<p><b>Antenna Design for a Proximal Soil Moisture Mapping Sensor</b></p> <p>Adrian Eng-Choon Tan (Lincoln Agritech Limited, Lincoln</p>

	<p>University, New Zealand)</p> <p>Sean Richards (Lincoln Agritech Limited, Lincoln University, New Zealand)</p> <p>Ian Platt (Lincoln Agritech Limited, Lincoln University, New Zealand)</p> <p>Ian Woodhead (Lincoln Agritech Limited, Lincoln University, New Zealand)</p>
<b>11:00</b>	<p><b>RFID Coordinate Registration for Agricultural Process Sensing</b></p> <p>Ian G. Platt (Lincoln Agritech Limited, New Zealand)</p> <p>Ian M Woodhead (Lincoln Agritech Limited, New Zealand)</p> <p>Adrian Tan (Lincoln Agritech Limited, New Zealand)</p> <p>Sean Richards (Lincoln Agritech Limited, New Zealand)</p> <p>Michael Hagedorn (Lincoln Agritech Limited, New Zealand)</p>
<b>11:20</b>	<p><b>Moisture Content: What is it and how can it be measured?</b></p> <p>John Christie (Lincoln Agritech Limited, New Zealand)</p> <p>Ian G. Platt (Lincoln Agritech Limited, New Zealand)</p>
<b>11:40</b>	<p><b>Using Directional Antennas as Sensors to Assist Fire-fighting Robots in Large Scale Fires</b></p> <p>Byung-Cheol Min (M2M Lab-RICE Research Center, Purdue University, USA)</p> <p>Eric T. Matson (M2M Lab-RICE Research Center, Purdue University, USA)</p> <p>Anthony Smith (M2M Lab-RICE Research Center, Purdue University, USA)</p> <p>J. Eric Dietz (Purdue Homeland Security Institute, Purdue University, USA)</p>
<p><b>10:20 – 12:00</b></p> <p><b>Micro and Nano-Sensors I</b></p> <p><b>Session Chairs: Serge Demidenko (RMIT International University, Vietnam)</b></p>	

<b>Melanie Ooi (Monash University, Malaysia)</b>	
<b>Room: Clancys Room</b>	
<b>10:20</b>	<p><b>Anti-Phase Coupled Bistable Transducers: a review of recent progress</b></p> <p>C. Trigona (DIEEI, University of Catania, Italy)  F. Giusa (DIEEI, University of Catania, Italy)  F. Maiorca (DIEEI, University of Catania, Italy)  A. Noto (DIEEI, University of Catania, Italy)  B. Andò (DIEEI, University of Catania, Italy)  S. Baglio (DIEEI, University of Catania, Italy)</p>
<b>10:40</b>	<p><b>Design and Simulation of Nano-mechanical Resonator for Virus Detection</b></p> <p>Gaurav Chaudhary (BITS Pilani, Dubai, UAE)  K.K. Singh (BITS Pilani, Dubai, UAE)  Anyaa Mittal (BITS Pilani, Dubai, UAE)  Neeru Sood (BITS Pilani, Dubai, UAE)</p>
<b>11:00</b>	<p><b>An Easy-fabricated Hydrogen Gas Sensor Based on Palladium-decorated Polyurethane Nanofibers</b></p> <p>Ran Chen (The State Key Lab of Fluid Power Transmission and Control, P.R. China)  Weiting Liu (The State Key Lab of Fluid Power Transmission and Control, P.R. China)  Xin Fu (The State Key Lab of Fluid Power Transmission and Control, P.R. China)  Paolo Dario (Polo Sant'Anna Valdera, Italy)</p>
<b>11:20</b>	<p><b>Design and Simulation of a Micro Hotplate for MEMS Based Integrated Gas Sensing System</b></p> <p>Hardeep Kumar (BITS Pilani, Dubai, UAE)  K.K. Singh (BITS Pilani, Dubai, UAE)  Neeru Singh (BITS Pilani, Dubai, UAE)</p>

	Anuj Kumar (BITS Pilani, Dubai, UAE) R.K. Mittal (BITS Pilani, Dubai, UAE)
<b>11:40</b>	<b>An Inkjet Printed Sensor for Load Measurement</b> Bruno Andò (DIEEI, University of Catania, Italy) Salvatore Baglio (DIEEI, University of Catania, Italy) Cristian O. Lombardo (DIEEI, University of Catania, Italy) V. Marletta (DIEEI, University of Catania, Italy)
<b>12:00 - 13:20</b>	<b>Lunch (午餐)</b>
<b>12:00 – 14:30</b>	<b>Sensor Application Development Workshop: App Development</b> <b>Room: Wakatipu Room</b>
<b>13:20 - 14:40</b>	<b>Special Session: Computer Vision and Machine Learning for Vision Based Applications, Organized by TC-32 (Fault-Tolerant Measurement Systems) of IEEE I&amp;M Society</b> <b>Session Chairs: Serge Demidenko (RMIT International University, Vietnam)</b> <b>Melanie Ooi (Monash University, Malaysia)</b> <b>Room: Queenstown Room</b>
<b>13:20</b>	<b>Fast and Robust Zebrafish Segmentation and Detection Algorithm under Different Spectrum Conditions</b> Jei Shian Tan (Monash University, Malaysia) Tak Kwin Chang (Monash University, Malaysia) Melanie Po-Leen Ooi (Monash University, Malaysia) Ye Chow Kuang (Monash University, Malaysia) Chee Pin Tan (Monash University, Malaysia) Takashi Kitahashi (Monash University, Malaysia)
<b>13:40</b>	<b>Detecting Spongiosis in Stained Histopathological Specimen using Multispectral Imaging and Machine Learning</b> Sanush Abeysekera (Monash University, Malaysia) Melanie Po-Leen Ooi (Monash University, Malaysia)

	<p>Ye Chow Kuang (Monash University, Malaysia)</p> <p>Chee Pin Tan (Monash University, Malaysia)</p> <p>Sharifah Syed Hassan (Monash University, Malaysia)</p>
<b>14:00</b>	<p><b>Vision Inspection System for Pharmaceuticals</b></p> <p>N.M. Duong (RMIT International University Vietnam, Vietnam)</p> <p>M.T. Chew (RMIT International University Vietnam, Vietnam &amp; Massey University, New Zealand)</p> <p>S. Demidenko (RMIT International University Vietnam, Vietnam &amp; Massey University, New Zealand)</p> <p>Q.H. Pham (National Instruments Vietnam, Vietnam)</p> <p>D.K. Pham (National Instruments Vietnam, Vietnam)</p> <p>M. P.-L. Ooi (Monash University, Malaysia)</p> <p>Y.C. Kuang (Monash University, Malaysia)</p>
<b>14:20</b>	<p><b>Standard Uncertainty Estimation on Polynomial Regression Models</b></p> <p>Arvind Rajan (Monash University Malaysia, Malaysia)</p> <p>Ye Chow Kuang (Monash University Malaysia, Malaysia)</p> <p>Melanie Po-Leen Ooi (Monash University Malaysia, Malaysia)</p> <p>Serge Demidenko (RMIT International University, Vietnam &amp; Massey University, New Zealand)</p>
<p><b>13:20 – 14:40</b></p> <p><b>Magnetic Sensors and Applications</b></p> <p><b>Session Chair: Salvatore Baglio (University of Catania, Italy)</b></p> <p><b>Room: Clancys Room</b></p>	
<b>13:20</b>	<p><b>Microfluidic Injector Simulation with SAW Sensor for 3D Integration</b></p> <p>Hang Bui Thu (University of Engineering and Technology, Vietnam National University, Vietnam)</p> <p>Trinh Chu Duc (University of Engineering and Technology,</p>

	Vietnam National University, Vietnam)
<b>13:40</b>	<p><b>Predicting Cole-Cole Parameters of Microfluids with Microstrip Technology</b></p> <p>Adam Santorelli (McGill University, Canada) Joshua Schwartz (Trinity University, USA)</p>
<b>14:00</b>	<p><b>A Coupled Nonlinear Circuit for E-field and B-field Detection</b></p> <p>B. Andò (University of Catania, Italy) S. Baglio (University of Catania, Italy) A. Beninato (University of Catania, Italy) A.R. Bulsara (Space and Naval Warfare Center, San Diego, USA) T. Emery (Space and Naval Warfare Center, San Diego, USA) C. Jenkins (Advanced Light Source, Lawrence Berkeley National Laboratory, USA) V. Palkar (Indian Institute of Technology, Mumbai, India)</p>
<b>14:20</b>	<p><b>Applications of Nanoparticle-based Fluxgate Magnetometers for Positioning and Location</b></p> <p>John Kennedy (GNS Science, New Zealand) Jérôme Leveneur (GNS Science, New Zealand) James Turner (GNS Science, New Zealand) John Futter (GNS Science, New Zealand) Grant V.M. Williams (Victoria University, New Zealand)</p>
<b>14:40 - 15:10</b>	<b>Afternoon Break(午後休息)</b>
<b>15:10 – 15:20</b>	<p><b>SAS 2015 Presentation</b></p> <p><b>Vedran Bilas (University of Zagreb, Croatia)</b></p> <p><b>Room: Queenstown Room</b></p>
<b>15:20 – 17:00</b>	<b>Special Session: Environmental and Agritech Related Sensors II</b>



<p><b>Session Chairs: Ian Woodhead (Lincoln Agritech Limited, New Zealand)</b>  <b>Ian Platt (Lincoln Agritech Limited, New Zealand)</b>  <b>Room: Queenstown Room</b></p>	
<b>15:20</b>	<p><b>A Miniaturized Soil Moisture Sensor Based on Time Domain Transmissometry</b>  Bianca Will (Ruhr-University Bochum, Germany)  Ilona Rolfes (Ruhr-University Bochum, Germany)</p>
<b>15:40</b>	<p><b>Spatial Time Domain Reflectometry (spatial TDR) in Geo-environmental Engineering</b>  A.Scheuermann (The University of Queensland, Australia)  C. Gonzales (The University of Queensland, Australia)  J. Fan (The University of Queensland, Australia)  B. Braga (The University of Queensland, Australia)  T. Baumgartl (The University of Queensland, Australia)  D. Lockington (The University of Queensland, Australia)  S. Schlaeger (sceme GmbH, Germany)  R. Becker (Rhein-Waal University of Applied Science, Germany)  N. Wagner (Bauhaus-University Weimar, Germany)  C. Hübner (University of Applied Sciences Mannheim, Germany)</p>
<b>16:00</b>	<p><b>Estimation of the Soil Water Characteristics from Dielectric Relaxation Spectra</b>  Norman Wagner (Bauhaus-University Weimar, Germany)  Frank Daschner (University of Kiel, Germany)  Alexander Scheuermann (The University of Queensland, Australia)  Moritz Schwing (University of Queensland, Australia)</p>
<b>16:20</b>	<p><b>Non-destructive Coaxial Transmission Line Measurements for Dielectric Soil Characterization</b></p>

	<p>M. Schwing (The University of Queensland, Australia)</p> <p>Z. Chen (The University of Queensland, Australia)</p> <p>A. Scheuermann (The University of Queensland, Australia)</p> <p>N. Wagner (Bauhaus-University Weimar, Germany)</p>
<b>16:40</b>	<p><b>A Comparison of Two Ranging Approaches in an Active, Optical Plant Canopy Sensor</b></p> <p>Michael T. Schaefer (University of New England &amp; CSIRO, Australia)</p> <p>David W. Lamb (University of New England &amp; Precision Agriculture Research Group, Australia)</p> <p>Ron Bradbury (University of New England, Australia)</p>
<p><b>15:20 – 17:00</b></p> <p><b>Sensors Applications in Robotics and Automation</b></p> <p><b>Session Chair: Gourab Sen Gupta (Massey University, New Zealand)</b></p> <p><b>Room: Clancys Room</b></p>	
<b>15:20</b>	<p><b>Direction of Arrival Estimation of Kiwi Call in Noisy and Reverberant Bush</b></p> <p>Craig Gray (University of Canterbury, New Zealand)</p> <p>Yusuke Hioka (University of Canterbury, New Zealand)</p>
<b>15:40</b>	<p><b>A New Approach On Advanced Compact Plasma Sensors for Industrial Plasma Applications</b></p> <p>Christian Schulz (Ruhr-University Bochum, Germany)</p> <p>Ilona Rolfes (Ruhr-University Bochum, Germany)</p>
<b>16:00</b>	<p><b>Real-time Classification of Industrial Products Based on the Photonic-mixer-device Sensor Technology</b></p> <p>Stephan Hussmann (West Coast University of Applied Sciences, Germany)</p> <p>Jörn Sandner (West Coast University of Applied Sciences, Germany)</p>
<b>16:20</b>	<p><b>Phase-Height Relationship by Plane Analysis in 3D Shape</b></p>

	<p><b>Measurement using Fringe Pattern Projector</b></p> <p>Byeong-Mook Chung (Yeungnam University, South Korea)  Yoon-Chang Park (Sunmoom University, South Korea)  Jin-Yeong Do (AVACO Co., Ltd, South Korea)</p>
16:40	<p><b>PointsBug Versus TangentBug Algorithm, A Performance Comparison In Unknown Static Environment</b></p> <p>N. Buniyamin (Universiti Teknologi MARA, Malaysia)  W.A.J. Wan Ngah (Universiti Teknologi MARA, Malaysia)  Zainuddin Mohamad (Universiti Teknologi MARA, Malaysia)</p>
<p><b>17:00</b></p> <p><b>Sensor Application Development Workshop: 5 Minute Pitches</b></p> <p><b>Room: Queenstown Room</b></p>	
19:00	<p><b>Symposium Dinner Skyline Queenstown Restaurant</b>  (研討會晚餐於 Skyline Queenstown 餐廳)</p>
<p><b>Thursday, February 20(2/20 星期四)</b></p>	
<p><b>08:45 - 09:00</b></p> <p><b>Closing Remarks</b></p> <p><b>Room: Queenstown Room</b></p>	
<p><b>09:00 - 10:20</b></p> <p><b>Sensors Applications in Robotics and Automation II</b></p> <p><b>Session Chair: Gourab Sen Gupta (Massey University, New Zealand)</b></p> <p><b>Room: Queenstown Room</b></p>	
09:00	<p><b>Sensing and Processing of Bio-metric Signals for use in Low Cost Bio-robotic Systems</b></p> <p>Christopher Scott (Massey University, New Zealand)  Gourab Sen Gupta (Massey University, New Zealand)  Liqiong Tang (Massey University, New Zealand)</p>
09:20	<p><b>Investigation of Force Sensors for use in Bipedal Humanoid Dynamic Gait Generation</b></p> <p>Rick Pierce (Massey University, New Zealand)</p>

	Gourab Sen Gupta (Massey University, New Zealand)
<b>09:40</b>	<b>Sensor Signal Filtering in Quadrotor Control</b> S.T. Pham (RMIT International University Vietnam, Vietnam) M.T. Chew (RMIT International University Vietnam, Vietnam)
<b>10:00</b>	<b>Automating Monitoring of Cat Feeding Behaviour</b> Donald Bailey (Massey University, New Zealand) David Thomas (Massey University, New Zealand) Michelle Cho (Massey University, New Zealand) Said Al-Souti (Massey University, New Zealand)
<b>9:00 - 10:40</b> <b>Wireless Sensor Networks I</b> <b>Session Chair: Alessandra Flammini (University of Brescia, Italy)</b> <b>Room: Clancys Room</b>	
<b>09:00</b>	<b>Wireless Aircraft Fuel Quantity Indication System</b> Jason Bommer (The Boeing Company, USA) Andy Robb (The Boeing Company, USA) René Martinez (Intermec Technologies Corp., USA) Shashi Ramamurthy (Intermec Technologies Corp., USA) Jason Harrigan (Intermec Technologies Corp., USA) Harikiran Muniganti (Indian Institute of Science, India) Vivekanand Mannangi (Indian Institute of Science, India) K.J. Vinoy (Indian Institute of Science, India)
<b>09:20</b>	<b>Mobility-Aware Hybrid Medium Access Control Protocol for Wireless Sensor Network (WSN)</b> Abdul Razaque (University of Bridgeport, USA) Khaled M. Elleithy (University of Bridgeport, USA)
<b>09:40</b>	<b>Low-power Wireless Interface for Handheld Smart Metering Devices</b> L. Berghella (University of Brescia, Italy) A. Depari (University of Brescia, Italy)

	<p>P. Ferrari (University of Brescia, Italy)</p> <p>A. Flammini (University of Brescia, Italy)</p> <p>S. Rinaldi (University of Brescia, Italy)</p> <p>E. Sisinni (University of Brescia, Italy)</p> <p>A. Vezzoli (University of Brescia, Italy)</p>
<b>10:00</b>	<p><b>An Empirical Path Loss Model for Wireless Sensor Network Deployment in a Dense Tree Environment</b></p> <p>Abdulaziz Al-Sayyari (Florida Institute of Technology, USA)</p> <p>Ivica Kostanic (Florida Institute of Technology, USA)</p> <p>Carlos E. Otero (Florida Institute of Technology, USA)</p>
<b>10:20</b>	<p><b>BlurSense: Dynamic Fine-Grained Access Control for Smartphone Privacy</b></p> <p>Justin Cappos (NYU-Poly, USA)</p> <p>Lai Wang (NYU-Poly, USA)</p> <p>Richard Weiss (Evergreen State College, USA)</p> <p>Yi Yang (Fontbonne University, USA)</p> <p>Yanyan Zhuang (University of British Columbia, Canada)</p>
<b>10:40 – 11:00</b>	<b>Morning Break(早晨休息)</b>
<b>11:00 – 12:40</b>	<p><b>Wireless Sensor Networks II</b></p> <p><b>Session Chair: Bruno Andò (University of Catania, Italy)</b></p> <p><b>Room: Queenstown Room</b></p>
<b>11:00</b>	<p><b>What is the First Step in Designing an Application Protocol for Wireless Sensor Networks (WSNs)?</b></p> <p>Quazi Mamun (Charles Sturt University, Australia)</p> <p>Mohammed Kaosar (Charles Sturt University, Australia)</p>
<b>11:20</b>	<p><b>UWB Sensor Network on 2-D Waveguide Sheet</b></p> <p>Yuta Kudo (University of Tokyo, Japan)</p> <p>Akihito Noda (University of Tokyo, Japan)</p> <p>Hiroyuki Shinoda (University of Tokyo, Japan)</p>

<p><b>11:40</b></p>	<p><b>A Networked High-Speed Vision System for Vehicle Tracking</b></p> <p>Akihito Noda (The University of Tokyo, Japan)  Masahiro Hirano (The University of Tokyo, Japan)  Yuji Yamakawa (The University of Tokyo, Japan)  Masatoshi Ishikawa (The University of Tokyo, Japan)</p>
<p><b>12:00</b></p>	<p><b>Fuzzy Logic Control Mechanism for Flash Flood Monitoring Station</b></p> <p>Supamit Jankoo (Chiang Mai University, Thailand)  Paskorn Champrasert (Chiang Mai University, Thailand)  Benya Suntaranont (Chiang Mai University, Thailand)</p>
<p><b>12:20</b></p>	<p><b>A Processing Approach for a Correlating Time-of-Flight Range Sensor Based on a Least Squares Method</b></p> <p>Michael Hofbauer (Vienna University of Technology, Austria)  Johannes Seiter (Vienna University of Technology, Austria)  Milos Davidovic (Vienna University of Technology, Austria)  Horst Zimmermann (Vienna University of Technology, Austria)</p>
<p><b>11:00 – 12:20</b></p> <p><b>Special Session: Sensors and Systems for Emergency and First Response</b></p> <p><b>Session Chairs: Eric T. Matson (M2M Lab-RICE Research Center, Purdue University, USA)</b></p> <p><b>Room: Clancys Room</b></p>	
<p><b>11:00</b></p>	<p><b>An Efficient Area Coverage Algorithm using Passive RFID System</b></p> <p>Sangyup Lee (Kyunghee University, Korea)  Choong-Yong Lee (Kyunghee University, Korea)  Wonse Jo (Kyunghee University, Korea)  Dong-Han Kim (Kyunghee University, Korea)</p>
<p><b>11:20</b></p>	<p><b>Infrared Depth Sensor Kinect™-based Smart Room Controller</b></p>

	<p>Arthur Silitonga (President University, Indonesia)</p> <p>Sugianto Thoeng (President University, Indonesia)</p>
<b>11:40</b>	<p><b>Fluvial Monitoring and Flood Response</b></p> <p>Shi-Wei Lo (National Center for High-Performance Computing, Taiwan)</p> <p>Jyh-Horng Wu (National Center for High-Performance Computing, Taiwan)</p> <p>Lun-Chi Chen (National Center for High-Performance Computing, Taiwan)</p> <p>Chien-Hao Tseng (National Center for High-Performance Computing, Taiwan)</p> <p>Fang-Pang Lin (National Center for High-Performance Computing, Taiwan)</p>
<b>12:00</b>	<p><b>Uncertainty analysis for optical time-of-flight sensors based on four-phase-shift range calculation</b></p> <p>Torsten Edeler (University of Applied Sciences Hamburg, Germany)</p> <p>Stephan Hussmann (West Coast University of Applied Sciences, Germany)</p> <p>Florian Knoll (West Coast University of Applied Sciences, Germany)</p>