## ICCAS-SICE 2009 Session Table (Tuesday, August 18, 2009)

|      |   | Main Hall                       |  | Room 01  | Room 02  | Room 03                                      | Room 04  | Room 05   |    |
|------|---|---------------------------------|--|--|--|--|--|---|----|
| 0:00 |   |                                 |  | 1A01 (8:50-17:40)  |  |  |  |   | 1  |
|      |   |                                 |  |  |  |  |  |   |    |
| 00   |   |                                 |  |  |  |  |  |   | 1  |
| 00   |   |                                 |  | Workshop 1: Third Japan-                                 | 1A02   | 1A03 (13:00-16:00)                           | 1A04   | 1A05  | ٦Ē |
| 00   |   |                                 |  | Control Theory and<br>Applications on Complex<br>Systems | Tutorial Session 1: Ground<br>Penetrating Radar (GPR) /<br>UWB Radar : Fundamentals to<br>Applications | Workshop 2: Particle Filters –               | OS: Nanoscale Servo<br>Control for Storage Systems<br>and Precision Devices                  | Robot Control I                                 |    |
| 5    |   |                                 |  | Systems  | 1B02   | Computer Intensive, Statistical              | 1B04   | 1B05  | ٦ľ |
| 15   |   |                                 |  |  | OS: SICE Embedded Control<br>Systems Summit 2009   | Signal Processing Techniques                 | OS: Applications in<br>Biomedical and Welfare<br>Systems                                     | Robot Control II                                |    |
|      | D 00  | D 07                            | D 00   | D 00   |  |  |  |   |    |
| 00   | Room 06   | Room 07                         | Room 08  | Room 09  | Room 10  | Room 11                                      | Room 12  | Room 13   | -  |
| 0    |   |                                 |  |  |  |  |  |   |    |
| 0    | 1A06  | 1A07                            | 1A08   | 1A09   | 1A10   | 1A11   | 1A12   | 1A13  | İ٢ |
| 0    | Vehicle I   | Control Theory & Design I       | Educational and Entertaining<br>Robot          | Data Mining and Clustering                               | Machine Vision I   | OS: Biological Control<br>Systems            | OS: Modeling and Control of<br>Human-Machine Interactions                                    | OS: Recent Receding Horizon<br>Control Methods  | 1  |
| 5    | 1B06  | 1B07                            | 1B08   | 1B09   | 1B10   | 1B11   | 1B12   | 1B13  | Ť  |
| 5    | Vehicle II  | Control Theory & Design II      | Motor & Power Control                          | Autonomous System  | Machine Vision II  | OS: Control Theory and<br>Numerical Analysis | OS: Emergent Control and<br>Information Technologies for<br>Human Living Environment         | OS: Optimization Algorithms<br>and Applications |    |
|      | Room 14   | Room 15                         | Room 16  | Room 17  | Room 18  | Room 19                                      | G  | allery  | -  |
| 0    |   | 1001110                         |  |  |  |  |  | anol y  | Ī  |
|      |   |                                 |  |  |  |  |  |   |    |
| 00   |   |                                 |  |  |  |  |  |   |    |
| 00   | 1A14  | 1A15                            | 1A16   | 1A17   | 1A18   | 1A19   |  |   | j  |
| 00   | OS: Control of Axially Moving<br>Systems              | Control System                  | OS: Recent Progress in<br>Mechanical Metrology | Sensors and Transducers I                                | Motor & Power Systems I  | Pattern Recognition                          | Special Pc   | oster Session                                   |    |
| 15   | 1B14  | 1B15                            | 1B16   | 1B17   | 1B18   | ]  | "Introduction of Activit   | ies of the SICE Technical                       |    |
|      | OS: Robotics to Extend<br>Human Strength and Activity | Industrial Applications(Others) | Signal Prcessing in EEG                        | Sensors and Transducers II                               | Motor & Power Systems II   |  | "Introduction of Activities of the SICE Technical<br>Committees, Study Groups, and Chapters" |   |    |

 17:30
 17:30

 18:30
 18:30

## ICCAS-SICE 2009 Session Table (Wednesday, August 19, 2009)

| 9:00       |   |   |                                       |   |   |  |   |   |           |
|------------|---|---|---------------------------------------|---|---|--|---|---|-----------|
|            |   |   |                                       | 2A01  | 2A02  | 2A03   | 2A04  | 2A05  | 9:00      |
|            |   |   |                                       | Tutorial Mini-Course 1: Designing                                     | OS: Data Driven Approach to                           | OS: SICE and International                                 | OS: SICE-CCC Joint                                    |   |           |
| 11:00      |   |   |                                       | Human-Centered Ubiquitous<br>Computing Society (in Japanese)          | Controller Parameter Tuning                           | Standardization Activities :<br>Keynote Session            | Session on Complex<br>Systems                         | System/Information I                              | 11:00     |
| 11:15-12:1 | 15  | Plenary Talk / Main Hall                        | "An Industry Perspective on           |   | l<br>bl: Architecture, Algorithms, App                | •  | ad (IEEE CSS President, USA)                          | ) 11  | :15-12:15 |
| 13:15      |   | Invited Talk (13:15-14:15)                      | An industry Perspective on            | 2B01  | 2B02 (12:30-14:10)                                    | 2803   | 2B04  | 2B05  | 13:15     |
| 10.10      | "Hun  | nanoid Robot: A Machine That W                  | Valks"                                | Tutorial Mini-Course 2: Process Data                                  |   | OS: International  | OS: SICE-CCC Joint                                    | 2000  | 10.10     |
|            |   | Prof. Jun Ho Oh (KAIST, Korea)                  |                                       | Analysis for Quality Improvement and<br>Process Control (in Japanese) | Luncheon Seminar (In<br>Japanese)                     | Standardization for Process                                | Session on Advanced                                   | System/Information II                             |           |
| 15:15      |   | Invited Talk (14:15-15:15)                      |                                       |   |   | Automation Businesses                                      | Control Design  |   | 15:15     |
| 15:30      | "Semiotic Design of Human-Machine Systems: Paradigm<br>Shift from Design for Manufacture to Design for Nurture" |   |                                       | 2001  | 2C02 (14:30-17:00)                                    | 2C03   | 2C04  | 2C05  | 15:30     |
|            |   | Tetsuo Sawaragi (Kyoto Univ., .                 |                                       | Tutorial Mini-Course 3: An<br>Introduction to Bayesian                | OS: Sponsored Industrial<br>Session1: Model-Based     | OS: International<br>Standardization for Robot             | OS: Advanced Adaptive and<br>Learning Control -Theory | Image Processing                                  |           |
| 17:30      |   |   |                                       | Modeling (in Japanese)  | Design  | Technology   | and Applications-                                     | indge i recessing                                 | 17:30     |
| 17:45      |   |   |                                       | 2D01  | 2D02 (17:15-18:45)                                    | 2D03   | 2D04  | 2D05  | 17:45     |
|            |   |   |                                       | OS: Environmental Monitoring Sensors<br>and Systems Using Sound and   | OS: Sponsored Industrial Session2:                    | OS: International  | OS: The Unmanned Ground                               | Image Processing for                              |           |
| 10.05      |   |   |                                       | Ultrasound Waves / Nondestructive                                     | Symbolic Numeric Approach to<br>Dynamic System Design | Standardization for Factory<br>Automation Businesses       | Vehicle   | Measurement                                       | 10.05     |
| 19:05      |   |   |                                       | Evaluation with Non-linear Ultrasonics                                | -,  | Automation Businesses                                      |   |   | 19:05     |
|            | Room 06   | Room 07   | Room 08                               | Room 09   | Room 10   | Room 11  | Room 12   | Room 13   |           |
| 9:00       | 2A06  | 2A07  | 2A08                                  | 2A09  | 2A10  | 2A11   | 2A12  | 2A13  | 9:00      |
|            | Control Theory & Design III   | Distributed, Hierarchical                       | Virtual Reality and Human             | Opto-Electronic Measurement   | Human-robot Interaction                               | OS: Nexus System Design:<br>New Interaction among          | Robot Control III                                     | OS: Probabilistic and<br>Randomized Techniques in |           |
| 11:00      | Control Theory & Design III   | System Control                                  | Interfaces                            | Opto Electronic Measurement   | Human robot Interaction                               | Humans, Agents, and Robots                                 |   | Systems and Control                               | 11:00     |
| 11:15-12:1 | 15  | Plenary Talk / Main Hall                        | "An Industry Perspective on           | Process Automation and Contro   | ol: Architecture, Algorithms, App                     |  | ad (IEEE CSS President, USA)                          | ) 11  | :15-12:15 |
| 13:15      | 2B06  | 2B07  | 2B08                                  | 2B09  | 2B10  | 2B11   | 2B12  | 2B13  | 13:15     |
|            |   | Process/Manufacturing                           |                                       |   |   | OS: Robotics and   | OS: Interaction Design                                | OS: System Development                            |           |
| 15:15      | Control Theory & Design IV  | System I  | Manipulation and Grasping             | Temperature Measurement   | Medical and Welfare Systems                           | Mechatronics in Rehabilitation<br>and Welfare Applications | between Robots and<br>Environment                     | Technologies for Indoor Air<br>Quality Management | 15:15     |
| 15:30      | 2C06  | 2C07  | 2C08                                  | 2C09  | 2C10  | 2C11   | 2C12  | 2C13  | 15:30     |
|            |   |   |                                       |   |   |  |   | OS: Model Predictive Control:                     |           |
|            | Networked Sensing System  | Process/Manufacturing<br>System II              | Man-Machine Systems                   | Signal Processing I   | Industrial Network System                             | OS: Intelligent Robotics and<br>Applications               | OS: Biomeasurement and Its<br>Applications            | Recent Advances for                               |           |
| 17:30      |   | -   |                                       |   |   |  |   | Applications                                      | 17:30     |
| 17:45      | 2D06  | 2D07  | 2D08                                  | 2D09  | 2D10  | 2D11   | 2D12  | 2D13  | 17:45     |
|            | Nonlinear Control   | OS: Control of Flexible                         | Robot Navigation and Mapping          | Signal Processing II  | Biological System                                     | Optimization   | Stock Forecasting &                                   | Fault Tolerant / Embedded                         |           |
| 19:05      |   | Mechanical Systems                              |                                       | 5   |   | ·  | Portfolio   | System  | 19:05     |
|            |   |   |                                       |   |   |  | -   |   | _         |
|            | Room 14   | Room 15   | Room 16                               | Room 17   | Room 18   | Room 19  | Ga  | allery  |           |
| 9:00       | 2A14  | 2A15<br>OS: Advanced Systems for                | 2A16<br>OS: Atmospheric and           | 2A17  | 2A18  | 2A19   |   |   | 9:00      |
|            | Sliding Mode Control  | Safety and Loss Prevention of                   | Meteorological Radar                  | Mechanical System I   | Sensor Fusion and Soft<br>Sensor I                    | Multi Agent System / Discrete<br>Event System              |   |   |           |
| 11:00      |   | Industrial Complex                              | Applications                          |   | Sensor I  | Event System   |   |   | 11:00     |
| 11:15-12:1 | 15 F  | Plenary Talk / Main Hall                        | "An Industry Perspective on           | Process Automation and Contro   | ol: Architecture, Algorithms, App                     | lications "Dr. Tariq Sam                                   | ad (IEEE CSS President, USA)                          | ) 11  | :15-12:15 |
| 13:15      | 2B14  | 2B15  | 2B16                                  | 2B17  | 2B18  | 2B19   | 210   | 1–07  | 13:15     |
|            | OS: Scheduling and Hybrid<br>Systems Based on Discrete  | OS: Underwater Wireless<br>Sensor Network Based | Acoustical Measurement                | Mechanical System II  | Sensor Fusion and Soft                                | OS: Safety Control and<br>Preventive Maintenance for       | Interactiv  | ve Session  |           |
| 15:15      | Event Systems   | Navigation and Tracking                         |                                       |   | Sensor II   | Safety on Site   |   |   | 15:15     |
| 15:30      | 2C14  | 2C15  | 2C16                                  | 2C17  | 2C18  | 2C19   | ]   |   | 15:30     |
|            | OS: Advances in Networked   | OS: Construction Robot:                         | OS: Distributed Autonomous            |   | OS: Inverse Problems in                               | Robotics and Communication                                 |   |   |           |
| 17:30      | Control Systems   | Autonomous Excavator                            | Systems and Robots                    | Mechanical System III   | Measurement   | Systems  |   |   | 17:30     |
| 17:45      | 2D14  | 2D15  | 2D16                                  | 2D17  | 2D18  | 2D19   | 1   |   | 17:45     |
|            |   |   |                                       |   |   |  |   |   |           |
|            | Modeling and Estimation   | Manufacturing Systems                           | Monitoring and Observation<br>Systems | Life Science  | Image Processing for Motion<br>Detection              | Biped and Multi-Legged<br>Robots                           |   |   |           |
| 19:05      |   |   |                                       |   |   |  | J   |   | 19:05     |

## ICCAS-SICE 2009 Session Table (Thursday, August 20, 2009)

|              |   | Main Hall   |  | Room 01  | Room 02   | Room 03   | Room 04  | Room 05  |          |
|--------------|---|---|--|--|---|---|--|--|----------|
| :00          |   |   |  | 3A01   | 3A02  | 3A03  | 3A04   | 3A05   | 9:0      |
| :00          |   |   |  | OS: Evolutionary and<br>Distributed Systems Towards<br>Real-world Applications | OS: Trend of Service<br>Engineering to Support High-<br>Quality Life I          | OS: Recent Advancement of<br>Process Control in Steel and<br>Chemical Industries I          | OS: Recent Advances in<br>Temperature Measurement I          | Network Control  | 11:      |
| :15<br>::15  |   | Plenary Talk / Ma   | in Hall <sup>″</sup> Measurement an        | d Control in Micro-Nano Roboti   | cs and Automation System"   | Prof. Toshio Fukuda (Nag  | oya Univ., Japan)  |  | 11<br>12 |
| 3:15<br>4:55 |   | Invited Talk (13:15–14:15)<br>Representation, Matching and I<br>ngbin Zha (Peking University, P |  | 3B01 (13:15-16:35)<br>Tutorial Session 2: Tutorial                             | 3B02<br>OS: Trend of Service<br>Engineering to Support High-<br>Quality Life II | 3B03<br>OS: Recent Advancement of<br>Process Control in Steel and<br>Chemical Industries II | 3B04<br>OS: Recent Advances in<br>Temperature Measurement II | 3805<br>Control Design under<br>Constraints                | 13<br>14 |
| :10          | Introduct   | Introduction to Japanese Project 1 (14:50-15:50)  |  |  | 3C02  | 3C03<br>OS: Recent Advancement of   | 3C04   | 3C05   | 15       |
| 6:50         | Introduct   | Introduction to Japanese Project 2 (15:50-16:50)  |  |  | OS: Artificial Life Systems:<br>Theory and Applications                         | Process Control in Steel and<br>Chemical Industries III                                     | OS: Ubiquitous Sensor Node                                   | Transportation Systems                                     | 16       |
|              | Room 06   | Room 07   | Room 08                                    | Room 09  | Room 10   | Room 11   | Room 12  | Room 13  | 1        |
| 00           | 3A06  | 3A07  | 3A08                                       | 3A09   | 3A10  | 3A11  | 3A12 (9:00-11:20)  | 3A13   | 9:       |
| :00          | Fuzzy Control   | Engine & Power Systems  | Genetic Algorithm Application              | Mobile Robot I   | PID Control   | OS: Fluid Power Control   | OS: Advanced Radar<br>technology for National<br>Security    | OS: Control System Design<br>with Input/Output Constraints | 5 11     |
| :15<br>:15   |   | Plenary Talk / Ma   | in Hall <sup>"</sup> Measurement an        | cs and Automation System"  | Prof. Toshio Fukuda (Nag  | oya Univ., Japan)   |  | 11   |          |
| :15          | 3B06  | 3B07  | 3B08                                       | 3B09   | 3B10  | 3B11  | 3B12   | 3B13   | 13       |
| :55          | Flow Measurement and<br>Control                                       | Haptics and Perception  | OS: Non Destructive<br>Evaluation          | Mobile Robot II  | Standard of Measurement I   | Genetic Network I   | OS: Robot Vision   | OS: Parameter/Parametric<br>Design in Control              | 14       |
| 10           | 3C06  | 3C07  | 3C08                                       | ]  | 3C10  | 3C11  | 3C12   | 3C13   | 15       |
| 50           | Predictive Control  | Force Control and Haptic<br>Devices   | OS: FLUCOME-J SICE                         |  | Standard of Measurement II  | Genetic Network II  | OS: Uderwater Robots and<br>Marine Systems                   | OS: SOS and LMI in Control                                 | 10       |
|              | Room 14   | Room 15   | Room 16                                    | Room 17  | Room 18   | Room 19   | 0  | allery   |          |
| 00           | 3A14  | 3A15  | 3A16                                       | 3A17   | 3A18  | Roolli 19   | <u> </u>   | allery   | 9        |
| 00           | OS: Iterative Learning Control  | OS: Biomimetic Approach in<br>Robotics and Machines   | Human-Machine Interface I                  | Path Planning  | OS: Navigation, Guidance, and<br>Control in Aerospace Systems<br>I              |   |  |  | 11       |
| :15<br>:15   |   | Plenary Talk / Ma   | in Hall <sup>″</sup> Measurement an        | d Control in Micro-Nano Roboti   | cs and Automation System"   | Prof. Toshio Fukuda (Nag  | oya Univ., Japan)  |  | 11       |
| :15          | 3B14  | 3B15  | 3B16                                       | 3B17   | 3B18  |   | 3I01-07  | (13:15-15:15)  | 1:       |
| :55          | OS: Recent Advances of<br>Automotive Technology in<br>Japan and Korea | OS: GNSS Applications I   | Human-Machine Interface II                 | OS: Advanced Pattern<br>Measurement  | OS: Navigation, Guidance, and<br>Control in Aerospace Systems<br>II             |   | Interactive Session  |  | 14       |
| :10          | 3C14  | 3C15  | 3C16                                       | 3C17   | 3C18  | ]   |  |  | 1        |
| 6:50         | OS: Behavioral Approach to<br>Systems and Control                     | OS: GNSS Applications II  | Human Characteristics &<br>Motion Analysis | 3D Shape Measurement   | Vision and Recognition  |   |  |  | 10       |

| 17:05 |  | 17:05 |
|-------|--|-------|
|       | Awards Ceremony for SICE Members / Main Hall |       |
| 18:20 |  | 18:20 |
| 19:00 |  | 19:00 |
|       | Banquet / Hotel Okura Fukuoa                 |       |
| 21:00 |  | 21:00 |

## ICCAS-SICE 2009 Session Table (Friday, August 21, 2009)

|                | Main Hall   | Room 01  | Room 02   | Room 03   | Room 04  | Room 05                                   |                |
|----------------|---|--|---|---|--|---|----------------|
| 9:00           |   | 4A01   | 4A02  | 4A03  | 4A04   | 4A05                                      | 9:00           |
| 11:00          |   | Tutorial Mini-Course 4: Visual<br>Feedback for Cooperative<br>Motion Control | OS: Braking Technology for<br>Vehicles                          | OS: Formation and<br>Cooperative Control of Multi–<br>Agent Systems                 | OS: Recent Advances in<br>Engine Control Technology                  | OS: Intelligent Human-<br>Machine Systems | 11:00          |
| 11:15<br>12:15 | Plenary Talk / Main Hall "Optomechatronics: Challenges to Smart Integr  | ration of Optical and Mechatron  | ic Technologies with Controllabl                                | le and Observable Elements"   | Prof. Hyungsuck Cho  | (KAIST, Korea)                            | 11:15<br>12:15 |
| 13:15          | Invited Talk (13:15-14:15)  | 4B01   | 4B02  | 4B03  | 4B04   | 4B05                                      | 13:15          |
| 15:35          | ″Real-Time Multi-Target Visual Tracking Using Active Camera ″<br>Prof. Li-Chen Fu (National Taiwan Univ., Taiwan) | Tutorial Mini-Course 5:<br>Rescue Robotics and Its<br>Applications           | OS: Control Applications in<br>Mechatronics and<br>Powertronics | OS: Technologies and<br>Standardization for Information<br>Cooperation in PA and FA | OS: Sensing, Control and<br>Safety System for Intelligent<br>Vehicle | Biological Engineering                    | 15:35          |

|                | Room 06   | Room 07  | Room 08                     | Room 09                            | Room 10                       | Room 11   | Room 12  | Room 13  |       |
|----------------|---|--|-----------------------------|------------------------------------|-------------------------------|---|--|--|-------|
| 9:00           | 4A06  | 4A07   | 4A08                        | 4A09                               | 4A10                          | 4A11  | 4A12   | 4A13   | 9:00  |
| 11:00          |   | OS: Navigation, Guidance, and<br>Control in Aerospace Systems<br>III | Robots and Acoustic Systems | New Technologies in Robotics<br>I  | Industrial Automation Systems | OS: Women in Engineering on<br>Virtual Reality, Vers.2    | OS: Advanced Techniques in<br>Autonomous Mobile Robots | OS: Analysis and Control of<br>Quantized Systems | 11:00 |
| 11:15<br>12:15 | Plenary Talk / Main Hall Ontomechatronics: Challenges to Smart Integration of Ontical and Mechatronic Technologies with Controllable and Observable Elements Prof. Hyungsuck Cho (KAIST, Korea) |  |                             |                                    |                               |   |  |  |       |
| 13:15          | 4B06  | 4B07   | 4B08                        | 4B09                               | 4B10                          | 4B11  | 4B12   | 4B13   | 13:15 |
| 15:35          |   | OS: Navigation, Guidance, and<br>Control in Aerospace Systems<br>IV  |                             | New Technologies in Robotics<br>II | Vision and Sensing            | OS: Modeling, Analysis and<br>Synthesis of Hybrid Systems | Remote Sensing   | OS: Recent Advances in<br>System Identification  | 15:35 |

| [              | Room 14  | Room 15   | Room 16  | Room 17   | Room 18                                | Room 19   | Gallery               |       |  |  |
|----------------|--|---|--|---|--|---|-----------------------|-------|--|--|
| 9:00           | 4A14   | 4A15  | 4A16   | 4A17  | 4A18                                   | 4A19  |                       | 9:00  |  |  |
| 11:00          | OS: Magnetic Levitation<br>Systems   | OS: Soft Computing<br>Techniques and Their<br>Applications I  | OS: GNSS Backup and<br>Complementary Systems                         | Analytical Measurement I                                      | System<br>Identification/Estimation I  | Neural Network                                    |                       | 11:00 |  |  |
| 11:15<br>12:15 | Plenary Talk / Main Hall Untomechatronics: Challenges to Smart Integration of Untical and Mechatronic Lechnologies with Controllable and Observable Elements Prot Hyungsuck Cho (KAIS), Korea) |   |  |   |  |   |                       |       |  |  |
| 13:15          | 4B14   | 4B15  | 4B16   | 4B17  | 4B18                                   | 4B19  | 4101-07 (13:15-15:15) | 13:15 |  |  |
| 15:35          | System/Information III   | OS: Soft Computing<br>Techniques and Their<br>Applications II | OS: Computational<br>Intelligence: New Trends and<br>Its Application | Analytical Measurement<br>II/Ecological and Social<br>Network | System<br>Identification/Estimation II | OS: Perspectives of<br>Transdisciplinary Approach | Interactive Session   | 15:35 |  |  |

| 15:50 |                              | 15:50 |
|-------|------------------------------|-------|
|       | Closing Ceremony / Main Hall |       |
| 16:50 |                              | 16:50 |