| Tuesday, Septem                                 |   |  |   | Open   | 9:00-ing & Plenary Session                    |   | orium)  |  |  |   |  |  |  |
|---|---|--|---|--|---|---|---|--|--|---|--|--|--|
| School of Engineering<br>Bldg,2 North Wing 1F   | School of Engineering<br>Bldg.2 North Wing 1F | School of Engineering<br>Bldg.2 North Wing 1F  | School of Engineering<br>Bldg.2 North Wing 2F   | School of Engineering<br>Bldg.2 North Wing 2F  | School of Engineering Bldg.2 North Wing 2F    | School of Engineering Bldg.2 North Wing 3F    | School of Engineering<br>Bldg.2 Old Wing 3F                     | School of Engineering<br>Bldg.2 North Wing 4F        | School of Engineering<br>Bldg.2 North Wing 4F            | School of Engineering<br>Bldg.2 North Wing 4F                         | School of Engineerin<br>Bldg.2 Old Wing 41               |  |  |
| Room 211<br>14:00-15:15                         | Room 212                                      | Room 213   | Room 221  | Room 222   | Room 223                                      | Room 231                                      | Room 233  | Room 241   | Room 243   | Room 244  | Room 246   |  |  |
|   | 14:00-15:15                                   | 14:00-15:15  | 14:00-15:15   |  | 14:00-15:15                                   | 14:00-15:15                                   | 14:00-15:15   | 14:00-15:15  | 14:00-15:15  | 14:00-15:15   | 14:00-15:15  |  |  |
| A-1:Spin Transport                              | B-1:ReRAM                                     | C-1:Nanowire and<br>Nanostructure-Based FET  | D-1:GaN Device<br>Technologies I  |  | F-1:High-Capacity-Anode<br>Materials (Li, Si) | G-1:Interconnect-I                            | H-1:Germanium for<br>Photonics Applications                     | J-1:Innovative Device Based<br>Circuits I            | K-1:Organic Light Emitting<br>and Sensing Devices        | M-1:Quantum Nano<br>Photonics   | N-1:Novel Thin Film<br>Materials and Device              |  |  |
| 15:30-17:15                                     | 15:30-16:30                                   | 15:30-16:30  | 15:30-17:15   |  | Coffee<br>15:30-16:45                         | Break   | 15:30-16:45   | 15:30-17:15<br>Area7 & Special                       | 15:30-16:45<br>Area3 & 7                                 | 15:30-17:15   | 15:30-16:45  |  |  |
| -2:Spintornics for AI and LSI Applications      | B-2:Selector for Memory                       | C-2:Transistor Physics and<br>Reliability  | D-2:SiC MOS Interface   |  | F-2:Battery / Fuel Cell                       |   | H-2:Si Photonic Integrated<br>Circuits                          | J-2:Ion/Photon Coupled<br>Systems                    | K-2:Organic Printing and<br>Patterning Technologies      | M-2:Optical Properties of<br>2D Materials                             | N-2:Crystal Growth<br>Group IV and Relate<br>Materials I |  |  |
|   |   |  |   |  | Departure 19:20 Banquet Crui                  |   |   |  |  |   |  |  |  |
| ednesday, Sept                                  |   |  |   |  |   |   |   |  |  |   |  |  |  |
| School of Engineering Bldg.2 North Wing 1F      | School of Engineering<br>Bldg.2 North Wing 1F | School of Engineering<br>Bldg.2 North Wing 1F  | School of Engineering<br>Bldg.2 North Wing 2F   | School of Engineering<br>Bldg.2 North Wing 2F  | School of Engineering<br>Bldg.2 North Wing 2F | School of Engineering<br>Bldg.2 North Wing 3F | School of Engineering<br>Bldg.2 Old Wing 3F                     | School of Engineering<br>Bldg.2 North Wing 4F        | School of Engineering<br>Bldg.2 North Wing 4F            | School of Engineering<br>Bldg.2 North Wing 4F                         | School of Engineeri<br>Bldg.2 Old Wing 4                 |  |  |
| Room 211<br>9:00-10:30                          | Room 212<br>9:00-10:30                        | Room 213<br>9:00-10:30   | Room 221<br>9:00-10:30  | 9:00-10:30   | Room 223<br>9:15-10:30                        | Room 231<br>9:00-10:15                        | Room 233<br>9:00-10:30  | Room 241<br>9:00-10:30<br>Area7 & Special            | Room 243<br>9:00-10:15                                   | Room 244<br>9:00-10:30  | Room 246<br>9:00-10:30                                   |  |  |
| a-3:Quantum Phenomena                           | B-3:In-Memory Computing                       | C-3:Characterization and Process Technology  | D-3:Ultrawide-Bandgap<br>Semiconductor Devices I  | E-3:Characterizations of<br>Gate Dielectrics   | F-3:Perovskite                                | G-3:3D Intergration                           | H-3:Heterogeneous<br>Photonic Integrated Circuits<br>on Si      | J-3:Innovative Device Based<br>Circuits II           | K-3:Bio and Micro Systems                                | M-3:2D Materials &<br>Devices I                                       | N-3:Oxide Materials a<br>Advanced Devices                |  |  |
| 10:45-12:00                                     | 10:45-12:00                                   | 10:45-12:00  | 10:45-12:00   | 10:45-12:00  | Coffee<br>10:45-12:00                         | Break<br>10:45-11:45                          | 10:45-12:00   | 10:45-12:00  | 10:45-11:45  | 10:45-12:00   |  |  |  |
|   | 10.43-12.00                                   |  |   |  | 10.45-12.00                                   | 10.45-11.45                                   |   | Area10 & Special  J-4:Thin Film Oxide                | K-4:Organic Memory,                                      |   |  |  |  |
| A-4:Electrical Control of Magnetism             | B-4:In-Memory Computing II                    | C-4:Ferroelectric and<br>Tunnel FET I  | D-4:Ultrawide-Bandgap<br>Semiconductor Devices II   | E-4:Advanced Materials Synthesis and Simulation  | F-4:Perovskite                                | G-4:Advanced Bonding                          | H-4:Integration Technology for Photonic Applications            | Materials Based Devices and<br>Systems               | Actuator and Sensing Devices                             | M-4:Nanowire Growth & Characterization                                |  |  |  |
|   |   |  |   |  | Luncheon Semi                                 | nar: Tektronix                                |   |  |  |   |  |  |  |
| 13:30-15:00                                     | 13:30-15:00                                   | 13:30-15:00<br>Area1 & 2   | 13:30-15:00   | 13:30-15:00  | 13:30-15:00                                   |   | 13:45-15:00   | 13:30-15:00<br>Area7 & Special                       | 13:30-14:45  | 13:30-15:00   | 13:30-14:30  |  |  |
| A-5:Novel Functional<br>Devices                 | B-5:Gate Stack and Interface<br>Engineering   | C-5:Ferroelectric Hafnium<br>Oxide: Breakthrough in<br>Transistor and Memory I                                   | D-5:High Frequency<br>Devices/Narrow Gap<br>Devices   | E-5:Nanostructures:<br>Synthesis and Properties  | F-5:Si and Compounds                          |   | H-5:Photonic Devices and<br>Platforms for Novel<br>Applications | J-5:Biomedical Devices and<br>Systems                | K-5:Organic Transistors                                  | M-5:Physics & Application of Graphene Devices                         | N-5:Poly-Si TFT Technologies and Cir Applications        |  |  |
|   |   | ·  |   |  | Coffee  | Break   | H   |  |  |   | 11   |  |  |
| 15:15-16:30                                     | 15:15-16:30                                   | 15:15-16:30<br>Area1 & 2   | 15:15-16:30   | 15:15-16:30  | 15:15-16:30                                   | 15:15-16:15                                   | 15:15-16:15   | 15:15-17:00  | 15:15-16:30  | 15:15-16:30   | 15:15-16:30  |  |  |
| A-6:New Materials and<br>Physics in Spintronics | B-6:Process Technology                        | C-6:Ferroelectric Hafnium<br>Oxide: Breakthrough in<br>Transistor and Memory II                                  | D-6:Silicon Devices and<br>Processes  | E-6:Group IV Materials   | F-6:Quantum Dot                               | G-6:Interconnect-II                           | H-6:Hybrid Devices and<br>Materials                             | J-6:Advanced Image<br>Sensors                        | K-6:Biodevices and<br>Materials                          | M-6:Nano-Structure<br>Devices   | N-6:New Functiona<br>Materials and Devic                 |  |  |
| 16:30-17:15                                     | 16:30-17:15                                   | 16:30-17:15  | 16:30-17:15   |  | 16:30-17:15                                   |   |   | 17:00-17:15  | 16:30-17:15  | 16:30-17:15   | 16:30-17:15  |  |  |
| Short Presentation                              | Short Presentation<br>Area2                   | <b>Short Presentation</b>  | Short Presentation<br>Area4   |  | Short Presentation                            |   |   | Short Presentation                                   | Short Presentation                                       | Short Presentation  | Short Presentation<br>Area10                             |  |  |
| Area9   | Short Presentation<br>Area3                   | Areal  | Short Presentation<br>Areal 1   |  | Area6   |   |   | Special Area   | Area7  | Area8   | Short Presentation<br>Area5                              |  |  |
|   |   |  |   | Rump Se  | 17:30-<br>ssions (Faculty of E                |   | Room 213)   |  |  |   |  |  |  |
| hursday, Septe                                  |   |  |   | •  |   |   |   |  |  |   |  |  |  |
| School of Engineering Bldg.2 North Wing 1F      | School of Engineering Bldg.2 North Wing 1F    | School of Engineering Bldg.2 North Wing 1F   | School of Engineering Bldg.2 North Wing 2F  | School of Engineering Bldg.2 North Wing 2F   | School of Engineering<br>Bldg.2 North Wing 2F | School of Engineering Bldg.2 North Wing 3F    | School of Engineering Bldg.2 Old Wing 3F                        | School of Engineering Bldg.2 North Wing 4F           | School of Engineering Bldg.2 North Wing 4F               | School of Engineering<br>Bldg.2 North Wing 4F                         | School of Engineeri<br>Bldg.2 Old Wing 4                 |  |  |
| Room 211<br>9:00-10:45                          | Room 212<br>9:00-10:45                        | Room 213<br>9:00-10:45   | Room 221<br>9:00-10:45  | 9:00-10:45   | Room 223<br>9:45-10:45                        | Room 231<br>9:00-10:45                        | Room 233  | Room 241<br>9:00-10:45<br>Area5 & Special            | Room 243<br>9:00-11:00                                   | Room 244<br>9:00-10:30  | Room 246<br>9:00-10:15                                   |  |  |
| A-7:Quantum Computational Devices               | B-7:Flash and 1T-DRAM                         | C-7:Ferroelectric and<br>Tunnel FET II   | D-7:GaN Device<br>Technologies II   | E-7:Advanced Growth of<br>Widegap Semiconductors   | F-7:Photoctalayst/Solar Cells                 | G-7:MEMS Application                          |   | J-7:LiDAR and Imaging Applications                   | K-7:Chemical and Gas<br>Sensors                          | M-7:2D Materials &<br>Devices II                                      | N-7:Advanced IGZ<br>Processes and Devic                  |  |  |
|   |   |  |   | Do aton Co   | Coffee 11:00-                                 | 13:30   | · Ita IIall)  |  |  |   |  |  |  |
|   |   |  |   | r oster se   | ssion (Ito Internatio                         | nch   |   | 14:00-16:00  |  |   |  |  |  |
| 14:00-16:00                                     |   | 14:00-15:45  | 14:00-15:45   |  | Area6 & 11                                    |   | 14:00-15:30   | Area1 & Special                                      | 14:00-15:30  |   | 14:00-15:15<br>N-8:Crystal Growth                        |  |  |
|   | <u>/</u>                                      | C-8:Group III-V and Ge<br>Technology   | D-8:SiC Devices and<br>Processes  |  | F-8:Thermoelectric<br>Materials               |   | H-8:Light Emitting Devices and Photodiodes                      | J-8:Innovative Device Based<br>Circuits III          | K-8:Molecular Materials and<br>Devices                   |   | Group IV and Relate<br>Materials II                      |  |  |
| -8:Spin-Orbit Interaction                       |   |  |   | Area 1: Advanced CMOS: Material Fundamentals, Process Science and Device Physics  Area Scope |   |   |   |  |  | Area 9: Novel Functional / Quantum / Spintronic Devices and Materials |  |  |  |
| -8:Spin-Orbit Interaction  Area Scope           |   | Area 1: Advanced CMOS:   | : Material Fundamentals, Pr   | rocess Science and Device F  | Physics                                       | Area Scope                                    |   | rica y. 1vover i unetionar /                         | Quantum / Spintronic Dev                                 | ices and Materials  |  |  |  |
|   | e   |  | : Material Fundamentals, Pr   |  | Physics                                       | Area Scope                                    |   |  |  | rystalline and Novel Process  |  |  |  |
| Area Scope                                      | е   |  | ging Memories and New Ap  |  | Physics                                       | Area Scope                                    |   | Area 10: Thin Film Electron Area 11: Advanced Materi | onics: Oxide, Non-single Cr<br>als Synthesis and Advance | rystalline and Novel Process d Characterization                       |  |  |  |
|   | e   | Area 2: Advanced / Emerg<br>Area 3: Interconnect / 3D I<br>Area 4: Power / High-spee                             | ging Memories and New Ap<br>Integrations / MEMS<br>ed Devices, and Materials  | pplications  | Physics                                       | Area Scope                                    |   | Area 10: Thin Film Electron Area 11: Advanced Materi | onics: Oxide, Non-single Cr<br>als Synthesis and Advance | rystalline and Novel Process  |  |  |  |
|   | e   | Area 2: Advanced / Emerg<br>Area 3: Interconnect / 3D I<br>Area 4: Power / High-spee<br>Area 5: Advanced Photoni | ging Memories and New Ap<br>Integrations / MEMS<br>and Devices, and Materials<br>accs: Devices, Integration and                                 | oplications  I Related Technology  | Physics                                       | Area Scope                                    |   | Area 10: Thin Film Electron Area 11: Advanced Materi | onics: Oxide, Non-single Cr<br>als Synthesis and Advance | rystalline and Novel Process d Characterization                       |  |  |  |
|   | e   | Area 2: Advanced / Emerg<br>Area 3: Interconnect / 3D I<br>Area 4: Power / High-spee<br>Area 5: Advanced Photoni | ging Memories and New Ap<br>Integrations / MEMS<br>and Devices, and Materials<br>acs: Devices, Integration and<br>argy Harvesting / Battery-rel | oplications  I Related Technology  | Physics                                       | Area Scope                                    |   | Area 10: Thin Film Electron Area 11: Advanced Materi | onics: Oxide, Non-single Cr<br>als Synthesis and Advance | rystalline and Novel Process d Characterization                       |  |  |  |