### Day-1 : 21 October 2009 (Wednesday)
**Venue: Manhattan I**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.00am-9.00am</td>
<td>Registration</td>
</tr>
<tr>
<td>9.00am-9.05am</td>
<td>Welcoming Remark by Assoc. Prof. Mazlan Abdul Wahid, Chairman of the 10TH AICFM Organizing Committee</td>
</tr>
<tr>
<td>9.05am-9.15am</td>
<td>Welcoming Address by Prof. Shin-Hyoung Kang, Chairman of Asian Fluid Machinery Committee (AFMC)</td>
</tr>
</tbody>
</table>
| 9.15am-10.00am| **KEYNOTE ADDRESS 1**
|               | “Advanced Technologies for Turbomachinery to Utilize Effectively Renewable Energies at Offshore” |
|               | Professor Toshiaki Kanemoto                |
|               | Kyushu Institute of Technology, Japan      |
| 10.00am-10.30am| Tea break                                  |
| 10.30am-11.15am| **KEYNOTE ADDRESS 2**
|               | “Fluid Machinery Vibration Problems, Failures and Solutions – A Review with Some Case Studies” |
|               | Professor Ir.Mohd Salman Leong             |
|               | Director, Institute of Noise & Vibration (IKG), Universiti Teknologi Malaysia |
| 11.15am-12.00pm| **KEYNOTE ADDRESS 3**
|               | “Selection Operation & Maintenance of Pump in Water Supply” |
|               | Ir. Hj. Zainuddin Md Ghazali              |
|               | General Manager Operations, SAJ Holdings Sdn Bhd, Malaysia |

<table>
<thead>
<tr>
<th>Session 1A (Venue: Manhattan I)</th>
<th>Session 1B (Venue: Bronx V)</th>
<th>Session 1C (Venue: Bronx VI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theme: Fluid Dynamics of Fluid Machinery</td>
<td>Theme: Monitoring and Diagnosis</td>
<td>Theme: Pump</td>
</tr>
<tr>
<td>Chairman: Prof. Beyong Rog Shin (Changwon National Univ.)</td>
<td>Chairman: Mr. S. Takita (Ebara) Ir Hj. Zainuddin (SAJ)</td>
<td>Chairman: Prof. T. Kanemoto (Kyutech) Dr. Syahrullail (UTM)</td>
</tr>
<tr>
<td>Paper ID 69: Preliminary response analysis of UTHM ‘S ROVs</td>
<td>Paper ID 83: Auto Detection for high level water content for oil well</td>
<td>Paper ID 79: Study on Operation Optimization of Pumping Station’s 24 Hours Operation under Influences of Tides and Peak-Valley Electricity Prices</td>
</tr>
<tr>
<td>Paper ID 119: Effect of guide vane in ring groove arrangement for a small turbocharger</td>
<td>Paper ID 86: Experimental study on leakage flow in labyrinth seals with asymmetric geometries</td>
<td>Paper ID 82: Development and optimized design of propeller pump system &amp; structure with VFD in low-head pumping station</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Paper ID 136: Numerical and Experimental Study on Aerodynamic Characteristics of Basic Airfoils at Low Reynolds Numbers</td>
<td>Paper ID 128: Cleaning and heat transfer in heat exchanger with circulating fluidized bed</td>
<td>Paper ID 89: Optimal operation of variable speed pumping system in the eastern route of S-to-N water diversion project</td>
</tr>
</tbody>
</table>

1.15pm-2.00pm
Lunch *(Venue: Manhattan III)*

2.00pm-3.15pm

| Session 2A *(Venue: Manhattan I)*  
Theme: Fluid Dynamics of Fluid Machinery  
Chairman: Prof. H. Zhu (Yangzhou Univ.)  
Prof. Amer Nordin (UTM)  
| Session 2B *(Venue: Bronx V)*  
Theme: Monitoring and Diagnosis  
Chairman: Dr. T. Shigemitsu (Tokushima Univ.)  
Prof. Mazlan Wahid (UTM)  
| Session 2C *(Venue: Bronx VI)*  
Theme: Pump  
Chairman: Prof. Afifi (UTM)  
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper ID 166: Thermoacoustic refrigerator’s stack optimization</td>
<td>Paper ID 124: Duct water current turbine and extremely low head turbine helical type with boundary layer control</td>
<td>Paper ID 150: Research on optimal operation by adjusting blade angle in Jiangdu no. 4 pumping station</td>
</tr>
</tbody>
</table>

3.15pm-4.15pm

Opening Ceremony  
Officiated by:  
YB Datuk Peter Chin Fah Kui  
Minister of Energy, Green Technology and Water Malaysia  
*(Venue: Manhattan I)*
**THE 10TH ASIAN INTERNATIONAL CONFERENCE ON FLUID MACHINERY (10TH AICFM)
21 - 23 OCTOBER 2009 BERJAYA | TIMES SQUARE HOTEL & CONVENTION CENTRE, KUALA LUMPUR**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.15pm-4.30pm</td>
<td>Tea Break</td>
</tr>
<tr>
<td>4.30pm-5.45pm</td>
<td><strong>Parallel Session 3</strong></td>
</tr>
<tr>
<td></td>
<td><strong>SESSION 3A(Venue:Manhattan I)</strong></td>
</tr>
<tr>
<td></td>
<td>Theme: Fluid Dynamics of Fluid Machinery</td>
</tr>
<tr>
<td></td>
<td>Chairman: Dr.D.Sakaguchi (Nagasaki Univ)</td>
</tr>
<tr>
<td></td>
<td>Prof. Hayati (UTM)</td>
</tr>
<tr>
<td></td>
<td><strong>SESSION 3B(Venue: Bronx V)</strong></td>
</tr>
<tr>
<td></td>
<td>Theme: Monitoring and Diagnosis</td>
</tr>
<tr>
<td></td>
<td>Chairman: Prof. R. Zhang (Yangzhou Univ.)</td>
</tr>
<tr>
<td></td>
<td>Dr.Syahrullail (UTM)</td>
</tr>
<tr>
<td></td>
<td><strong>SESSION 3C(Venue:Bronx VI)</strong></td>
</tr>
<tr>
<td></td>
<td>Theme: Pump</td>
</tr>
<tr>
<td></td>
<td>Chairman: Prof. A. Furukawa (Kyushu Univ.)</td>
</tr>
<tr>
<td></td>
<td>Dr.Jamaluddin (UTM)</td>
</tr>
<tr>
<td>Paper ID 178</td>
<td>Numerical analysis for structural safety evaluation of butterfly valves</td>
</tr>
<tr>
<td>Paper ID 222</td>
<td>Optimization of a circular microchannel with entropy generation minimization method</td>
</tr>
<tr>
<td>Paper ID 187</td>
<td>Numerical investigation of plain fin and round tube heat exchanger under frost condition</td>
</tr>
<tr>
<td>Paper ID 196</td>
<td>Investigation of flow field in bent duct</td>
</tr>
<tr>
<td>Paper ID 203</td>
<td>Parametric Study for Optimal Design of a Piping System in a Serially Connected Multi-Stage Turbo Blower</td>
</tr>
<tr>
<td>Paper ID 213</td>
<td>A two phase flow analyses in rotary dryer with agitator</td>
</tr>
<tr>
<td>Paper ID 216</td>
<td>Evaluation of aircraft wing-tip vortex using PIV</td>
</tr>
<tr>
<td>Paper ID 159</td>
<td>Counter-rotating type pump unit (rotational behaviors)</td>
</tr>
<tr>
<td>Paper ID 192</td>
<td>Inducer design to avoid cavitation instabilities</td>
</tr>
<tr>
<td>Paper ID 187</td>
<td>Numerical investigation of hydrodynamics lubrications with non_Newtonian fluid flow</td>
</tr>
<tr>
<td>Paper ID 221</td>
<td>Pressure analysis in point contact for elastohydrodynamic lubrication</td>
</tr>
<tr>
<td>Paper ID 202</td>
<td>Numerical simulation of centrifugal pump with double suction impeller</td>
</tr>
<tr>
<td>Paper ID 203</td>
<td>Parametric Study for Optimal Design of a Piping System in a Serially Connected Multi-Stage Turbo Blower</td>
</tr>
<tr>
<td>Paper ID 80</td>
<td>Pressure Variation at Load rejection of Bulgine Turbo With a Long Penstock and Its Hydrographic Model Test</td>
</tr>
<tr>
<td>Paper ID 135</td>
<td>Unsteady and Three-Dimensional PTV Measurements of Flow Structure in a Suction Sump</td>
</tr>
<tr>
<td>8.00pm - 9.30pm</td>
<td>Dinner/Banquet <em>(Venue: Manhattan III)</em></td>
</tr>
<tr>
<td>Time</td>
<td>Session / Paper ID</td>
</tr>
<tr>
<td>------------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>9.00am-9.45am</td>
<td>KEYNOTE ADDRESS 4</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>9.45am-10.00am</td>
<td>Tea break</td>
</tr>
<tr>
<td>10.00am-11.30am</td>
<td>Parallel Session 4</td>
</tr>
<tr>
<td></td>
<td>SESSION 4A(Venue: Manhattan I) Theme: Renewable Energy I</td>
</tr>
<tr>
<td></td>
<td>Chairman: Prof. H. Tsukamoto (Kyushu I. T) Prof. Afifi (UTM)</td>
</tr>
<tr>
<td>Paper ID 63</td>
<td>Sustainable rural energy: traditional water wheel in Padang Indonesia</td>
</tr>
<tr>
<td>Paper ID 76</td>
<td>Towers for offshore wind turbines</td>
</tr>
<tr>
<td>Paper ID 113</td>
<td>Wood combustion behavior in a fixed bed combuster</td>
</tr>
<tr>
<td>Paper ID 115</td>
<td>Limitations of commercializing fuel cell technologies</td>
</tr>
<tr>
<td>Paper ID 120</td>
<td>Innovative power - augmentation guide vane design of wind solar hybrid renewable energy harvester for urban high rise application</td>
</tr>
<tr>
<td>Paper ID 233</td>
<td>Suitability of using the accelerometer for impulse measurement of a pulse combustion tube</td>
</tr>
<tr>
<td>11.30am-11.45am</td>
<td>BREAK</td>
</tr>
<tr>
<td>11.45am – 1.30pm</td>
<td>Parallel Session 5</td>
</tr>
<tr>
<td></td>
<td>SESSION 5A(Venue: Manhattan I) Theme: Renewable Energy II</td>
</tr>
<tr>
<td></td>
<td>Chairman: Prof. J. Matsui (Yokohama Univ.) Prof. Amer (UTM)</td>
</tr>
<tr>
<td>Paper ID 131</td>
<td>Flow characteristics in an augmentation channel of a direct drive turbine for wave power generation</td>
</tr>
<tr>
<td>Paper ID 172</td>
<td>Numerical hydraulic study on cooling water circuit of independent water and power plant</td>
</tr>
<tr>
<td>Paper ID 177</td>
<td>An Investigation of the Water Flow past the Butterfly Valve</td>
</tr>
<tr>
<td>Paper ID 199</td>
<td>Design of a CO₂ twin rotary compressor for a heat pump water heater</td>
</tr>
<tr>
<td>Paper ID 205</td>
<td>Flow and performance calculations of axial compressor near stall margin</td>
</tr>
<tr>
<td></td>
<td>SESSION 5B(Venue: Bronx V) Theme: High Efficiency and Low Noise Fans</td>
</tr>
<tr>
<td></td>
<td>Chairman: Prof. K. Y. Kim (Inha Univ.) Prof. Wan Ali (UPNM)</td>
</tr>
<tr>
<td>Paper ID 95</td>
<td>A Preliminary axial fan design method with the consideration of performance and noise characteristics</td>
</tr>
<tr>
<td>Paper ID 96</td>
<td>Performance characteristic on 4-turbo blowers connected in serial and controlled by inverter</td>
</tr>
<tr>
<td>Paper ID 87</td>
<td>Radiation effects on free convection flow past an impulsively Started infinite vertical plate with ramped wall temperature and constant mass diffusion</td>
</tr>
<tr>
<td>Paper ID 93</td>
<td>Preliminary theoretical study of the formation and growth of droplets in nucleating flows</td>
</tr>
<tr>
<td>Paper ID 75</td>
<td>Preliminary theoretical study of the formation and growth of droplets in nucleating flows</td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
<td>---------------------------------------------------------------</td>
</tr>
<tr>
<td>Paper ID 193: Study on the performance of helical savonius rotor for wave energy conversion</td>
<td>Paper ID 98: Design of side channel type regenerative blower</td>
</tr>
<tr>
<td>Paper ID 212: Conceptual design of 100kW energy integrated type bi-directional tidal current turbine</td>
<td>Paper ID 99: Performance improvement of high speed jet fan</td>
</tr>
</tbody>
</table>

1.30pm – 2.30pm  Lunch (Venue: Manhattan III)  
2.30pm – 6.00pm  Tour
# Day-3 : 23 October 2009 (Friday)
**Venue: Manhattan I**

## Parallel Session 6

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Theme</th>
<th>Chairman</th>
<th>Paper IDs</th>
</tr>
</thead>
</table>
| 9.00am-10.15am | 6A      | **Hydro Turbine**               | Prof. J. Cheng (Yangzhou Univ.) / Prof. Amer (UTM) | Paper ID 60: Trash diverter orientation angle optimization at run-off river type hydro-power plant using CFD  
              |         |                                 |                        | Paper ID 146: Nonlinear aeroelastic analysis of 3D a MW-class wind turbine blade using CFD and CMBD coupling method  |
|              | 6B      | **Gas and Steam Turbines & Jet Technology** | Prof. Amer (UTM)       | Paper ID 84: Simulation of the Francis turbine and CAD used to optimize the runner design based on empirical correlation  
              |         |                                 |                        | Paper ID 109: Simulations of blade angle effects on egat - micro hydro turbine |
|              |         |                                 |                        | Paper ID 181: Design and performance analysis of turbine for 100k wotec plant  
| 10.15am-10.30am | 7       | **CFD**                         | Prof. Masoud Khan (Queensland Univ.) / Prof. Hayati (UTM) | Paper ID 223: A CFD study on aerodynamic characteristics of a middle wing for WIG Catamaran during ground effect  
              |         |                                 |                        | Paper ID 228: The development of duct for a horizontal axis turbine using CFD  
| 10.30am – 12.00pm | 8       | **Miscellaneous**               | Prof. H. Hayashi (Nagasaki Univ.) / Dr. Nor Azwadi (UTM) | Paper ID 226: Development of a small gas turbine combustor  
              |         |                                 |                        | Paper ID 229: CFD approach to investigate the flow characteristics in bi-directional ventilated brake disc  
|              |         |                                 |                        | Paper ID 241: Performance characteristics on a partially admitted small radial-typed turbine  
|              |         |                                 |                        | Paper ID 224: Spray pattern analysis for a pressure-swirl atomizer with four different nozzle configurations using Eulerian-DPM multiphase approach  |

## Parallel Session 7

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Theme</th>
<th>Chairman</th>
<th>Paper IDs</th>
</tr>
</thead>
</table>
| 9.00am-10.15am | 7A      | **CFD** | Prof. Masoud Khan (Queensland Univ.) / Prof. Hayati (UTM) | Paper ID 148: Analyzing the effect of free stream turbulence on gaseous non premixed flames  
|              |         |       |                        | Paper ID 167: Three dimensional numerical analysis of laminar heat exchanger considering fin shape and fan performance characteristics  
|              | 7B      | **Miscellaneous**               | Prof. H. Hayashi (Nagasaki Univ.) / Dr. Nor Azwadi (UTM) | Paper ID 226: Development of a small gas turbine combustor  
| 10.15am-10.30am |         |       |                        | Paper ID 127: Heat/mass transfer measurement on the tip surface of rotor blade with squlear rim  
| 10.30am – 12.00pm | 8       | **CFD** | Prof. Masoud Khan (Queensland Univ.) / Prof. Hayati (UTM) | Paper ID 223: A CFD study on aerodynamic characteristics of a middle wing for WIG Catamaran during ground effect  
|              |         |       |                        | Paper ID 228: The development of duct for a horizontal axis turbine using CFD  
|              |         |       |                        | Paper ID 229: CFD approach to investigate the flow characteristics in bi-directional ventilated brake disc  
|              |         |       |                        | Paper ID 241: Performance characteristics on a partially admitted small radial-typed turbine  
|              |         |       |                        | Paper ID 224: Spray pattern analysis for a pressure-swirl atomizer with four different nozzle configurations using Eulerian-DPM multiphase approach  |
|---|---|

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.00pm – 12.30pm</td>
<td>Closing Ceremony</td>
</tr>
<tr>
<td>12.30pm</td>
<td>End of Conference</td>
</tr>
</tbody>
</table>