

## TSME - ICoME 2022 Program

### 13<sup>th</sup> December 2022

|               |              |
|---------------|--------------|
| 14.00 - 17.00 | Registration |
|---------------|--------------|

### 14<sup>th</sup> December 2022

|               |   |
|---------------|---|
| 08.00 - 09.00 | Registration  |
| 09.00 - 09.10 | <b>TSME-ICoME 2022 Video Presentation</b><br><b>Introduction to TSME-ICoME 2022 Conference</b><br>Assoc. Prof. Dr. Amornrat Kaewpradap<br>Secretariate of TSME-ICoME 2022 Conference            |
| 09.10 - 09.15 | <b>Welcome to TSME-ICoME 2022 Conference</b><br>Asst. Prof. Dr. Atikorn Wongsatanawarid<br>Head of Department of Mechanical Engineering, KMUTT, Thailand  |
| 09.15 - 09.20 | <b>Welcome to TSME-ICoME 2022 Conference</b><br>Prof. Dr. Kulachate Pianthong<br>President of Thai Society of Mechanical Engineers (TSME), Thailand   |
| 09.20 - 09.25 | <b>Congratulatory Remarks</b><br>Prof. Dr. Chisachi Kato<br>President of Japan Society of Mechanical Engineers (JSME), Japan  |
| 09.25 - 09.35 | <b>Opening Remarks</b><br>Assoc. Prof. Dr. Suvit Saetia<br>President of King Mongkut's University of Technology Thonburi (KMUTT), Thailand  |
| 09.35 - 09.40 | <b>Opening Ceremony</b><br>Assoc. Prof. Dr. Suvit Saetia<br>Prof. Dr. Kulachate Pianthong   |
| 09.40 - 09.55 | <b>TSME Memory Awards</b>   |
| 09.55 - 10.05 | Photo Session   |
| 10.05 - 10.20 | Coffee Break  |
| 10.20 - 10.40 | <b>Keynote: Advances in Single-Phase and Two-Phase Heat Transfer Enhancement</b><br>Prof. Dr. Somchai Wongwises<br>Department of Mechanical Engineering, KMUTT, Thailand                        |
| 10.40 - 11.00 | <b>Keynote: Vascular materials: Predicting Design Evolution</b><br>Prof. Dr. Adrian Bejan<br>Department of Mechanical Engineering, Duke University, USA   |
| 11.00 - 11.20 | <b>Keynote: Thermal Decomposition of Cellulose in Supercritical CO<sub>2</sub> for Value Added Char Production</b><br>Prof. Dr. Ashwani K. Gupta<br>University of Maryland, USA                 |
| 11.20 - 11.40 | <b>Keynote: Heat and Mass Transport Phenomena at Lithium-ion Battery and Fuel Cell</b><br>Prof. Dr. Shuichi Hirai<br>Department of Mechanical Engineering, Tokyo Institute of Technology, Japan |
| 11.40 - 12.00 | <b>Keynote: Novel Cross-Axis Augmentation Wind Turbine for Offshore Application</b><br>Prof. Ir. Dr. Chong Wen Tong<br>Department of Mechanical Engineering, Universiti Malaya, Malaysia        |
| 12.00 - 13.30 | Lunch   |

|                 |  |                  |  |   |                                    |  |
|-----------------|--|------------------|--|---|------------------------------------|--|
| 13.30 - 13.50   | <b>Keynote:</b> Piezoelectric technology in the nutshell<br>Mr. Michael Raber<br>Kitsler Instrument (Thailand) Co., Ltd.                 |                  |  |   |                                    |  |
| 13.50 - 14.10   | <b>Keynote:</b> Design of High Efficiency Centrifugal Mixed Flow Fan<br>Dr. Yueh-Han Fei<br>Kruger Ventilation Industries Asia Co., Ltd. |                  |  |   |                                    |  |
| 14.10 - 14.30   | Coffee Break   |                  |  |   |                                    |  |
| <b>Room</b>     | <b>Arcadia 1</b>   | <b>Arcadia 2</b> | <b>Arcadia 3</b>                             | <b>Similan</b>                          | <b>Andaman 1</b>                   | <b>Andaman 2</b>                       |
| <b>Chair</b>    | Prof. Dr.Somchai Wongwises   |                  | Assoc. Prof. Dr.Preechar Karin               | Assoc. Prof. Dr.Angkee Sripakagorn      | Asst. Prof. Dr.Akapot Tantrapiwat  | Asst. Prof. Dr.Patcharapit Promoppatum |
| <b>Co-chair</b> | Assoc. Prof. Dr. Wisnanuruk Wechsator  |                  | Asst. Prof. Dr. Piyatida Trinuruk Kaewchinda | Assoc. Prof. Dr. Pattaramon Jongpradist | Assoc. Prof. Dr. Sontipee Aimmanee | Dr. Yanin Sukjai                       |
| 14.30 - 14.50   | TSF0015  |                  | AEC0005                                      | <b>Technical Session</b><br>Innova-Pack | AMM0010                            | CST0019                                |
| 14.50 - 15.10   | TSF0026  |                  | AEC0008                                      | AME0004                                 | AMM0011                            | CST0020                                |
| 15.10 - 15.30   | TSF0023  |                  | AEC0009                                      | AME0009                                 | AMM0012                            | CST0023                                |
| 15.30 - 15.50   | TSF0001  |                  | AEC0010                                      | AME0010                                 | AMM0014                            | TSF0007                                |
| 15.50 - 16.10   | TSF0002  |                  | AEC0011                                      | AME0011                                 | AMM0015                            | TSF0024                                |
| 16.10 - 16.30   | TSF0003  |                  | AEC0012                                      | AME0012                                 | AMM0016                            | TSF0009                                |
| 16.30 - 16.50   | TSF0008  |                  | AEC0003                                      | AME0015                                 |                                    |  |

### 15<sup>th</sup> December 2022

|                 |   |                                     |                                    |   |  |                                       |
|-----------------|---|-------------------------------------|------------------------------------|---|--|---------------------------------------|
| <b>Room</b>     | <b>Arcadia 1</b>  | <b>Arcadia 2</b>                    | <b>Arcadia 3</b>                   | <b>Similan</b>  | <b>Andaman 1</b>                       | <b>Andaman 2</b>                      |
| <b>Chair</b>    | Assoc. Prof. Dr. Wisnanuruk Wechsator   | Prof. Dr.Sumrerng Jugjai            | Assoc. Prof. Dr.Pongpan Kaewtatip  | Asst. Prof. Dr.Akapot Tantrapiwat   | Asst. Prof. Dr.Warakom Nerndnoi        | Asst. Prof. Dr.Pinyo Puangmali        |
| <b>Co-chair</b> | Assoc. Prof. Dr. Vitoon Uthaisangsuk  | Assoc. Prof. Dr. Yossapong Laoonual | Dr.Nuwong Chollacoop               | Dr. Kamthon Septham   | Asst. Prof. Dr.Patcharapit Promoppatum | Asst. Prof. Dr.Kitchanon Ruangjirakit |
| 09.00 - 09.20   | <b>Keynote</b><br>Elastic Guided Waves and Applications in SHM (Structural Health Monitoring) and NDE (Nondestructive Evaluation) for the Safer World with Improved Maintenance Schemes of Mechanical Integrities<br><br>Prof. Dr. Younho Cho<br>Pusan National University, | AEC0013                             | <b>Technical Session</b><br>Altair | <b>Keynote</b><br>VRFB (Vanadium Redox Flow Battery) associated V2X-eUTV (Vehicle to Everything-Electric Utility Vehicle) Solution<br><br>Dr.Chan Son<br>Korea Electric Power Corporation (KEPCO) | TSF0032                                | DRC0001                               |
| 09.20 - 09.40   | AMM0001   | AEC0014                             | CST0013                            | AME0003   | TSF0033                                | DRC0002                               |
| 09.40 - 10.00   | AMM0003   | AEC0016                             | CST0015                            | AME0006   | TSF0029                                | DRC0013                               |
| 10.00 - 10.20   | AMM0009   | AEC0017                             | CST0001                            | AME0017   | CST0007                                | DRC0014                               |
| 10.20 - 10.40   | Coffee Break  |                                     |                                    |   |  |                                       |
| 10.40 - 11.00   | TSF0022   | AEC0019                             | CST0003                            | DRC0005   | AMM0006                                | AEC0001                               |
| 11.00 - 11.20   | TSF0025   | AEC0020                             | CST0004                            | DRC0004   | AMM0024                                | AEC0004                               |
| 11.20 - 11.40   | TSF0027   | AEC0021                             | CST0006                            | DRC0012   | AMM0018                                | AEC0015                               |

|                 |  |                                     |  |                                      |  |   |
|-----------------|--|-------------------------------------|--|--------------------------------------|--|---|
| 11.40 - 12.00   | TSF0028  | AEC0022                             | CST0008                                  | DRC0017                              | AMM0013                                  | BME0005                                   |
| 12.00 - 13.00   | Lunch  |                                     |  |                                      |  |   |
| <b>Room</b>     | <b>Arcadia 1</b>   | <b>Arcadia 2</b>                    | <b>Arcadia 3</b>                         | <b>Similan</b>                       | <b>Andaman 1</b>                         | <b>Andaman 2</b>                          |
| <b>Chair</b>    | Prof. Dr.Kulachate Pianthong   | Asst. Prof. Dr.Pinyo Puangmali      | Assoc. Prof. Dr.Anchasa Pramuanjaroenkij | Prof. Dr.Tanakorn Wongwuttanasatian  | Assoc. Prof. Dr.Jaruwat Charoensuk       | Assoc. Prof. Dr.Petch Jearanaisilawong    |
| <b>Co-chair</b> | Asst. Prof. Dr.Pornthip Keangin  | Assoc. Prof. Dr. Anak Khantachawana | Dr. Suphanut Kongwat                     | Assoc. Prof. Dr. Amornrat Kaewpradap | Dr. Patcharawat Charoen-amornkitt        | Assoc. Prof. Dr. Chawin Chantharasenawong |
| 13.00 - 13.20   | TSF0017  | BME0009                             | <b>Technical Session<br/>CADFEM</b>      | AEC0002*                             | AMM0002*                                 | AME0005                                   |
| 13.20 - 13.40   | TSF0030  | BME0006                             | CST0009                                  | AEC0006*                             | AMM0005*                                 | AME0016                                   |
| 13.40 - 14.00   | TSF0010  | BME0007                             | CST0011                                  | AEC0007*                             | AMM0008*                                 | AME0014                                   |
| 14.00 - 14.20   | TSF0011  | BME0004                             | CST0014                                  | AEC0018*                             | AMM0023*                                 | AMM0004                                   |
| 14.20 - 14.40   | TSF0012  | BME0008                             | CST0016                                  | AEC0023*                             | AMM0028*                                 | AMM0025                                   |
| 14.40 - 15.00   | Coffee Break   |                                     |  |                                      |  |   |
| <b>Chair</b>    | Assoc. Prof. Dr. Wanchai Asvapoositkul                                   | Asst. Prof. Dr. Szathys Songschon   | Assoc. Prof. Dr. Sontipee Aimmanee       | Asst. Prof. Dr. Warakom Nerdnoi      | Asst. Prof. Dr.Chinda Charoenphonphanich | Assoc. Prof. Dr.Preechar Karin            |
| <b>Co-chair</b> | Asst. Prof. Dr. Atikorn Wongsatanawarid                                  | Dr. Suphanut Kongwat                | Asst. Prof. Dr.Pornthip Keangin          | Dr. Patcharawat Charoen-amornkitt    | Dr. Jakrapop Wongwiwat                   | Dr. Kamthon Septham                       |
| 15.00 - 15.20   | TSF0013  | DRC0011                             | CST0018                                  | AMM0017                              | ETM0003*                                 | AME0001*                                  |
| 15.20 - 15.40   | TSF0014  | DRC0009                             | CST0021                                  | AMM0019                              | ETM0004*                                 | AME0002*                                  |
| 15.40 - 16.00   | TSF0016  | DRC0007                             | CST0022                                  | AMM0022                              | ETM0005*                                 | AME0007*                                  |
| 16.00 - 16.20   | TSF0018  | DRC0015                             | CST0024                                  | AMM0026                              | ETM0007*                                 | AME0008*                                  |
| 16.20 - 16.40   | TSF0019  |                                     | CST0025                                  | AMM0027                              |  | AME0013*                                  |
| 16.40 - 17.00   | TSF0021  |                                     |  | AMM0007                              |  |   |
| 17.00 - 18.00   | TSME Committee / Head of Department Meeting (ROOM Andaman 1 - Andaman 2) |                                     |  |                                      |  |   |
| 18.30 - 22.00   | Conference Banquet   |                                     |  |                                      |  |   |

### 16<sup>th</sup> December 2022

|                 |                                     |                  |                                     |  |   |                                   |
|-----------------|-------------------------------------|------------------|-------------------------------------|--|---|-----------------------------------|
| <b>Room</b>     | <b>Arcadia 1</b>                    | <b>Arcadia 2</b> | <b>Arcadia 3</b>                    | <b>Similan</b>                               | <b>Andaman 1</b>                            | <b>Andaman 2</b>                  |
| <b>Chair</b>    | Assoc. Prof. Dr.Jaruwat Charoensuk  |                  | Assoc. Prof. Dr.Withaya Yongchareon | Asst. Prof. Dr.Chinda Charoenphonphanich     | Assoc. Prof. Dr.Anchasa Pramuanjaroenkij    | Assoc. Prof. Dr.Preechar Karin    |
| <b>Co-chair</b> | Assoc. Prof. Dr. Yossapong Laoonual |                  | Dr. Jakrapop Wongwiwat              | Asst. Prof. Dr. Piyatida Trinuruk Kaewchinda | Assoc. Prof. Dr. Teeranoot Chanthasopeephan | Asst. Prof. Dr. Szathys Songschon |
| 09.00 - 09.20   | TSF0004*                            |                  | CST0002*                            | ETM0001                                      | BME0002*                                    | DRC0003*                          |
| 09.20 - 09.40   | TSF0005*                            |                  | CST0005*                            | ETM0002                                      | BME0003*                                    | DRC0006*                          |
| 09.40 - 10.00   | TSF0006*                            |                  | CST0010*                            | ETM0006                                      | BME0010*                                    | DRC0008*                          |
| 10.00 - 10.20   | TSF0020*                            |                  | CST0012*                            | ETM0009                                      | BME0011*                                    | DRC0010*                          |
| 10.20 - 10.40   |                                     |                  | CST0017*                            | ETM0008                                      | <b>Prepare for closing ceremony</b>         | DRC0016*                          |
| 10.40 - 11.00   | Coffee Break                        |                  |                                     |  |   |                                   |

|               |  |
|---------------|--|
| 11.00 - 12.00 | <b>Closing Ceremony (ROOM Andaman 1 - Andaman 2)</b><br>- Best Paper and Runners-up Awards Presentation<br><br>- Closing Remarks by Asst. Prof. Dr. Atikorn Wongsatanawarid, Head of Department of Mechanical Engineering, KMUTT |
| 12.00 - 13.00 | Lunch  |

**NOTE:** \* Best Paper Candidates

**Updated 13 December 2022**

**Online**