

TIME TABLE

Day 1 (Sept. 1, Fri)

10:00 - Registration
11:00 - 11:30 Opening Ceremony

Teruaki Ito (Organizing Committee Chair)		
Simple Engineering for the Next Generation		
Professor Dr. Shuichi Fukuda		
Advisor, Keio University, System Design and Management Research Institute/ Professor Emeritus Tokyo Metropolitan Institute of Technology and Tokyo Metropolitan University		
Chair: Prof. Keiichi Watanuki (Saitama University)		

11:30 - 12:30 Keynote Address[1]

12:30 - 14:00 Lunch break

	RoomA	RoomB	RoomC
	Chair: Tsuyoshi Koga (Yamaguchi University)	Chair: Kaoru Mitsuhashi (Teikyo University)	Chair: Shigeru Hosono (Tokyo University of Technology)
[A1] Lean Manufacturing	3 7 8 41	[B1] Human Interface and Usability I 9 11 19 20	[C1] Machining Systems 33 13 40 44

14:00 - 15:20 Parallel Seesion[1]

15:20 - 15:50 Break

	Chair: Kazunori Kaede (Saitama University)	Chair: Masashi Okubo (Doshisha University)	Chair: Satoshi Kitayama (Kanazawa University)
[A2] Mechatronics Systems	5 15 16 32	[B2] Human Interface and Usability II 23 24 35 47	[C2] Automation and Intelligent Systems 10 28 29 45

15:50 - 17:10 Parallel Seesion[2]

Break

18:00 - 20:00

Banquet		
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Day 2 (Sept. 2, Sat)

9:00 - Registration

10:00 - 11:00 Keynote Address[2]

Shared Virtual World and Avatar Psychology		
Professor Dr. Tetsuro Ogi		
Professor, Keio University		
Chair: Prof. Teruaki Ito (Okayama Prefectural University)		
Driving Higher Education Institution towards Sustainability: UTeM Perspectives		
Professor Dr. Mohd Rizal Bin Salleh		
Dean, School of Graduate Studies, Universiti Teknikal Malaysia Melaka		
Chair: Prof. Effendi Mohamad (Universiti Teknikal Malaysia Melaka)		

11:00 - 12:00 Keynote Address[3]

12:00 - 13:00 Lunch break

	Chair: Yoshiharu Iwata (Osaka University)	Chair: Kaori Yamada (Iwate University)	Chair: Shigeru Hosono (Tokyo University of Technology)
[A3] Sustainable Design and Manufacturing I	4 12 21 22	[B3] Manufacturing Systems 6 30 36 43	[C3] Kansei/Emotional Design 17 18 25 46

13:00 - 14:20 Parallel Seesion[3]

14:20 - 14:50 Break

	Chair: Effendi Mohamad (Universiti Teknikal Malaysia Melaka)	Chair: Toshitake Tateno (Meiji University)	Chair: Eiji Morinaga (Osaka Metropolitan University)
[A4] Sustainable Design and Manufacturing II	31 34 38 39	[B4] CAD/CAM/CAE 26 14 27	[C4] AI/IoT Application 42 48 49

14:50 - 16:10 Parallel Seesion[4]

16:20 - 17:00 Closing Ceremony

Prof. Keiichi Watanuki (Steering Committee Chair)		
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Simple Engineering for the Next Generation Professor Dr. Shuichi Fukuda Advisor, Keio University, System Design and Management Research Institute / Professor Emeritus Tokyo Metropolitan Institute of Technology and Tokyo Metropolitan University Chair: Prof. Keiichi Watanuki (Saitama University)

12:30 - 14:00 Lunch break

Room A		Room B		Room C	
[A1] Lean Manufacturing Chair: Tsuyoshi Koga (Yamaguchi University)		[B1] Human Interface and Usability I Chair: Kaoru Mitsuhashi (Teikyo University)		[C1] Machining Systems Chair: Shigeru Hosono (Tokyo University of Technology)	
3	Effendi Mohamad, Nur Ain Qistina Muhammad Shafee, Teruaki Ito, Mohd Soufhwae Abd Rahman, Mohd Rizal Salleh, Arfauz A Rahman, Norliani Md Nor Hayati and Siti Aishah Abd Aziz	9	Eoghan Lavery, Muhamad Arfauz A Rahman, Yan Jin, Paul G. Maropoulos, Effendi Mohamad, Mohd Rizal Salleh and Azrul Azwan Abdul Rahman	33	Taro Iwata, Angkush Kumar Ghosh and Sharifu Ura
	Application of Kaizen in Proposing a Hood Placement Design for the Milling Machines' Exhausting Ventilation System		Development of Remote Collaboration Platform for Manufacturing Environment Using Mixed Reality		Toward Big Data Analytics for Smart Manufacturing: A Case of Machining Experiment
7	Reo Sugita, Satoshi Kitayama, Eri Aono, Shuhei Kondo, Koji Miyoshi and Masaharu Amano	11	Akihiro Tatsumi and Masashi Okubo	13	Hua Qiu and Tetsuro Yamaguchi
	Numerical Process Parameters Optimization in Hammer Forging for Minimizing Forging Load		Influences of Changing Clothes Color of Communication Robot on Information Transmission to Listener		Estimation and Examination for Cutter Path Motion Error of Machining Center
8	Effendi Mohamad, Anuar Ishak, Hambali Arep, Teruaki Ito, Muhamad Arfauz A Rahman and Mohd Faizal Ab Jaill	19	Ryota Murakami, Geunho Lee, Shijie Ge and Yusuke Hayakawa	40	Mohd Shahir Kasim, Saiful Bahri Mohamed, Zammeri Abdul Rahman, Siti Nurul Akmal Yusof, Siti Maryam Sharun, Raja Izamshah Raja Abdullah, Muhammad Ashlyzan Razik and Teruaki Ito
	Examining the Impact of Enablers on Green Lean Six Sigma Benefits in the Malaysian Wastewater Treatment Sector: A Pilot Study		Particle Filter Scheme of Both Shins Gaiting and Abdomen Swing for Motion Estimation and Prediction		The Effect of Cooling and Lubrication on the Cutting Force During the Milling Process of Inconel 718
41	Faizuddin Firdaus Zaini, Mohd Rizal Salleh, Md Nizam Abdul Rahman and Nashrullah Setiawan	20	Taichi Maeda and Keiichi Watanuki	44	Yuya Fujita, Muhammad Azmi Bin Ayub and Naoki Uchiyama
	Balanced Scorecard with KAIZEN approach for Increasing SMEs Performance: Case Study in Manufacturing Fashion Batik		Evaluation of Gazes of Experts and Beginners in Vortex Search of Fluid-Simulation		Optimal B-Spline Motion Trajectory Generation Considering Corner Tolerances for Industrial Machines

15:20 - 15:50 Break

[A2] Mechatronics Systems Chair: Kazunori Kaede (Saitama University)		[B2] Human Interface and Usability II Chair: Masashi Okubo (Doshisha University)		[C2] Automation and Intelligent Systems Chair: Satoshi Kitayama (Kanazawa University)	
5	Masahiko Itoh	23	Kazuya Yokota, Hirohide Imai, Hiroshi Kawanishi, Kengo Takahashi and Masajiro Abe	10	Rachel Hughes, Muhamad Arfauz A Rahman, Chengsi Lin, Paul G. Maropoulos, Effendi Mohamad, Mohd Rizal Salleh and Azrul Azwan Abdul Rahman
	Vibration Suppression Control of Geared Mechanical System with Power-Circulation Structure: Simulation Study on Sensor-Based Control Using the Performance Index Composed of the Control Error Area and the Current Consumption Area		Fundamental Development of a Safety System for Working Machinery Using Vibrotactile Information		Implementation of a 3D Scanning System for Quality Inspection in Manufacturing
15	Masahiko Itoh	24	Tomohiro Akutsu and Tetsuro Ogi	28	Firdaus Sukarman and Eisuke Kita
	Vibration Suppression Control of Geared Mechanical System with Power-Circulation Structure: Simulation Study on Disturbance Suppression Performance of Sensor-Based Control		Differences in Nonverbal Behavior in Online Communication		Automate Mobile Robot Actions Strategy Using Grammatical Evolution
16	Teppe Inoue, Geunho Lee and Kakeru Shiki	35	Xuanqi Feng, Takahiro Yakoh and Tetsuro Ogi	29	Kaito Hirae, Geunho Lee, Chunhe Li, Seiya Sakaguchi and Ryutarou Uozumi
	Development of a New Propulsion Mechanism Inspired by the Swimming Motion of Shrimp and Its Application to Underwater Robotics.		Face Type Recognition Method for Beauty Industry		Implementation and Feedback Controller of Mobile Platform for Hammering Inspection Robot
32	Naoki Kishi, Zhiqiang Wu and Tomonori Shigeyoshi	47	Yuki Kida, Kei Matsuoka and Tetsuro Ogi	45	Ryo Tateishi and Shigeru Hosono
	Simultaneous Optimization of Damper Arrangement and Shape in Vibration Problems (Approach Using GA)		Evaluation of Conveying Spatial Information by Pointing Gestures of a Tele-Immersion Robot Avatar		A Web3 Service Architecture with Self-Sovereign Identity

Break

18:00 - 20:00 Banquet

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TIME TABLE (DAY 2)

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9:00 - Registration

10:00 - 11:00 Keynote Address[2]

Shared Virtual World and Avatar Psychology
Professor Dr. Tetsuro Ogi
Professor, Keio University
Chair: Prof. Teruaki Ito (Okayama Prefectural University)

11:00 - 12:00 Keynote Address[3]

Driving Higher Education Institution towards Sustainability: UTeM Perspectives
Professor Dr. Mohd Rizal Bin Salleh
Dean, School of Graduate Studies, Universiti Teknikal Malaysia Melaka
Chair: Prof. Effendi Mohamad (Universiti Teknikal Malaysia Melaka)

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4	Megawati Sa'At, Mohd Rizal Salleh, Fadhur Rahim Azmi, Teruaki Ito, Mikito Yasuzawa, Arfauz A Rahman and Mohd Syaiful Rizal Abdul Hamid	A Literature Review on the Effects of New Sourcing Strategies for Labor Shortages on Production Performance in Malaysian Manufacturing Firms	6	Katsuya Takahashi, Hirohisa Narita, Hideo Fujimoto, Yudai Kobayashi and Yoshikatsu Muko	Analysis of Highly Skills Regarding Hammering Test for Mold Adjustment Operations	17	Nurhayati Md Issa, Nami Okamura, Ryohei Hazama, Wira Jazair Yahya, Mohd Hatta Mohammed Ariff and Tsuyoshi Koga	Proposal of a Quantitative Evaluation Method for Assisting in Evaluation of Latent Needs in Innovative Design Method
12	Mst Taskia Khatun, Kazuo Hiekata and Takuya Nakashima	Human Resource Allocation in Multi-Project Management Using Resource Buffers	30	Nasa Itohara and Toshitake Tateno	Toolpath Generation Algorithm Using Route Model for Non-Planar Layering in Additive Manufacturing	18	Nurhayati Md Issa, Ryohei Hazama, Nami Okamura, Wira Jazair Yahya, Mohd Azizi Abdul Rahman and Tsuyoshi Koga	Proposal and Validation of Statement Interpretation Guidelines (with Experience, as Designer, with Empathy) for Discovering Latent Needs from Interview Responses
21	Teruaki Ito, Mikito Yasuzawa, Hironori Takimoto, Akira Tsumaya, Hiroyuki Mitsuahara, Effendi Mohamad and Mohd Rizal Salleh	Cross-Cultural Teamwork Program for Japanese and Malaysian University Students	36	Nashrullah Setiawan, Mohd Rizal Salleh, Hambali Ariff and Faizuddin Firdaus Zaini	The Effect of 5S Implementation for Manufacturing Sustainability Performance in Indonesian Small and Medium Enterprises: Socio-Technical Perspective	25	Yusuke Tsutsui, Yuma Shibuya and Akira Tsumaya	Formulation of Value-in-Use for Model-Based Development
22	Hayata Okazaki, Taro Kato and Mitsuaki Furui	Effect of Various Conditions on Deformation Twin Formation by Torsion and Back-Torsion	43	Lukita Dea Kutari and Sharifu Ura	Analyzing Customer-Producer Interaction System Using Axiomatic Design Theory	46	Yo Otsuka, Mamiko Sakuragi and Masato Inoue	A User-Centered Design Method Based on Evaluation Grid Method and Rough Sets

14:20 - 14:50 Break

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31	Tomoyuki Kato, Tsuguto Inayama and Seiko Shirasaka	Proposal of System Design Framework Using Layered Lifecycle Structure	26	Kazuki Sasaki and Sharifu Ura	Geometric Modeling Using Stochastically Manipulated Triangular Tessellation	42	Yoshiharu Iwata and Hidefumi Wakamatsu	Investigation on Verification of the Integration Neural Networks Theory by Weight Analysis Based on Weierstrass' Approximation Theorem
34	Aki Nakamoto, Tsubasa Nakamura and Masaru Nakano	A Reference Model to Visualize and Deepen Discussions on Emergency Medical Services Electric Vertical Takeoff and Landing Aircraft	14	Kaori Yamada and Kazuyuki Hanahara	Disassembling Process Inference Using Positional Relations Matrix for Complicated Machines	48	Yasushi Tomita, Keiichi Watanuki, Kazunori Kaede, Yusuke Osawa, Shohei Tawata, Ryooya Oba and Naoki Nozawa	IoT and Machine Learning Based Micro Screw Axial Force Estimation Approach
38	Sachiko Ishida	Designing Self-Deployable Membranes Integrated with Elastic Frames	27	Kaoru Mitsuhashi	Classification of Handwritten Drawing Shape in 3D Direct Drawing System Using Machine Learning	49	Takashi Ohnishi and Keiichi Watanuki	Enhancing the Interpretability of Anomaly Detection Methods for the Prediction of Foreign Object Contamination
39	Yoshikazu Yamanaka, Hiroki Takahara and Katsutoshi Yoshida	Enhancing the Gravitational Search Algorithm Through Adaptive Parameter Control Using Linear Mapping of Fitness: A Preliminary Investigation						

16:20 - 17:00 Closing Ceremony

Prof. Keiichi Watanuki (Steering Committee Chair)