

Adaptive industrial robots using machine vision

Kuts, Vladimir; Otto, Tauno; Tähemaa, Toivo; Bukhari, Khuldoon; Patariaia, Tengiz ASME 2018 International Mechanical Engineering Congress and Exposition, Pittsburgh, Pennsylvania, USA, November 9–15, 2018 2018 / Paper No. IMECE2018-86720, pp. V002T02A093, 8 p. : ill <https://doi.org/10.1115/IMECE2018-86720>

AI-based surrogate model for the prediction of ship fuel consumption reflecting hydrometeorological conditions

Zhang, Mingyang; Tsoulakos, Nikolaos; **Kujala, Pentti Jouko Sakari**; Hirdaris, Spyros Proceedings of the International Conference on Offshore Mechanics and Arctic Engineering - OMAE 2024 ; vol. 9 2024 / OMAE2024-121992, V009T13A016 ; 11 pages <https://doi.org/10.1115/OMAE2024-121992> [Conference proceedings at Scopus](#) [Article at Scopus](#)

AL – A prototype autonomous ship model for navigating in ice conditions

Bolbot, Victor; Sandru, Andrei; Saarniniemi, Ture; Freter, Jan Hendrik; Puolakka, Otto; **Kujala, Pentti**; Valdez Banda, Osiris A. Proceedings of ASME 2024 43rd International Conference on Ocean, Offshore and Arctic Engineering (OMAE2024) June 9-14, 2024, Singapore, Singapore Volume 5 Ocean engineering A 2024 / art. v05at06a049, 10 p. <https://doi.org/10.1115/OMAE2024-127465> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Application of Mindlin Theory to Describe the Scattering of Guided Waves From Notches in a Plate

Rasheed, Usman; Lints, Martin; Ratassepp, Madis ASME 2022 49th Annual Review of Progress in Quantitative Nondestructive Evaluation (QNDE2022) 2022 <https://event.asme.org/Events/media/library/resources/qnde/QNDE-2022-Final-Program.pdf> <https://qnde.secure-platform.com/a/solicitations/178/sessiongallery/11537/application/98050>

Azimuthing propulsion in ice management

Hänninen, Samuli; **Kujala, Pentti Jouko Sakari**; Määttänen, Pirjo; Heideman, Torsten; Korsström, Andrei; Viheriälehto, Sampo; Koponen, Jorma Proceedings of the International Conference on Offshore Mechanics and Arctic Engineering - OMAE 2024 ; Vol. 6 2024 / art. OMAE2024-127102, V006T07A016 ; 10 pages <https://doi.org/10.1115/OMAE2024-127102> [Conference proceedings at Scopus](#) [Article at Scopus](#)

CCD IK implementatsion in unity for finding the angles of industrial robots' links

Nutonen, Karle; Kuts, Vladimir; Otto, Tauno ASME International Mechanical Engineering Congress and Exposition, Proceedings (IMECE) ; vol. 2 2024 / art. IMECE2024-142320, V002T03A072 ; 5 p. <https://doi.org/10.1115/IMECE2024-142320>

Centrifugal accelerators for erosion research and standard wear testing

Kleis, Ilmar; Uuemöis, Haljand; Üksti, Lembit; Pappel, Toivo Wear of materials 1979 : presented at the International Conference on Wear of Materials, Dearborn, Michigan, April 16-18, 1979 1979 / p. 212-218

Collision consequence assessment of ROPAX vessels operating in the Baltic Sea

Tabri, Kristjan; Ehlers, Sören; Körgesaar, Mihkel; Stahlberg, Kaarle; **Heinvee, Martin** Proceedings of the ASME 2012 31st International Conference on Ocean, Offshore and Arctic Engineering : OMAE2012 : July 1-6, 2012, Rio de Janeiro, Brazil 2012 / OMAE2012-83626, [9] p.: ill <https://asmedigitalcollection.asme.org/OMAE/proceedings/OMAE2012/44892/375/268786>

Deposition of fine solid particles in laminar flat-plate boundary layers [Electronic resource]

Hussainov, Medhat; Kartušinski, Aleksander; Michaelides, Efsthathios; **Rudi, Ülo; Štšeglov, Igor; Tisler, Sergei** Proceedings of FEDSM2007 : 5th joint ASME/JSME Fluids Engineering Conference, San Diego, California, USA, July 30 - August 2, 2007 2007 / [7] p. [CD-ROM] <https://asmedigitalcollection.asme.org/FEDSM/proceedings-abstract/FEDSM2007/42886/911/327596?redirectedFrom=PDF>

Developing of an engineering scientific innovative lab and teaching methodology for smart manufacturing in the hi-engineering school

Kekšin, Vjatšeslav; Sarkans, Martinš; Kuts, Vladimir ASME International Mechanical Engineering Congress and Exposition, Proceedings (IMECE) ; vol. 2 2024 / IMECE2024-143105, V002T03A073 ; 8 pages <https://doi.org/10.1115/IMECE2024-143105>

Digital Twin : concept of hybrid programming for industrial robots - use case

Kuts, Vladimir; Sarkans, Martinš; Otto, Tauno; Tähemaa, Toivo; Bondarenko, Yevhen ASME 2019 International Mechanical Engineering Congress and Exposition : conference proceedings 2019 / Paper No. IMECE2019-10583, V02BT02A005; 8 pages <https://doi.org/10.1115/IMECE2019-10583>

Digital Twin : universal user interface for online management of the manufacturing system

Kuts, Vladimir; Bondarenko, Yevhen; Gavriljuk, Marietta; Partyshv, Andriy; Jegorov, Sergei; Pizzagalli, Simone Luca; Otto, Tauno Proceedings of the ASME 2021 International Mechanical Engineering Congress and Exposition 2021 / paper no: IMECE2021-69092, 7 p <https://doi.org/10.1115/IMECE2021-69092>

Digital twin based learning from demonstration system for industrial robots

Bondarenko, Yevhen; Pizzagalli, Simone Luca; Kuts, Vladimir; Petlenkov, Eduard; Otto, Tauno ASME 2023 International Mechanical Engineering Congress and Exposition (IMECE2023) : proceedings. Vol. 3 2024 / art. IMECE2023-113240, V003T03A081 <https://doi.org/10.1115/IMECE2023-113240>

Digital twin simulations based reinforcement learning for navigation and control of a wheel-on-leg mobile robot

Alsaleh, Saleh Ragheb Saleh; Tepljakov, Aleksei; Tamre, Mart; Kuts, Vladimir; Petlenkov, Eduard Proceedings of ASME 2022 International Mechanical Engineering Congress and Exposition (IMECE2022), 2B: Columbus, Ohio, USA, October 30 - November 3, 2022 2022 / art. IMECE2022-95411, V02BT02A025, 8 p <https://doi.org/10.1115/IMECE2022-95411>

Effects of vertical motions on roll of planing hulls

Dashtimanesh, Abbas; Tavakoli, Sasan; Mancini, Simone; Mehr, Javad A.; Milanese, Stefano Journal of offshore mechanics and arctic engineering 2021 / p. 041401–041411 <https://doi.org/10.1115/1.4050210> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Evaluation of virtual reality interface interaction methods for digital twin industrial robot programming and control, a pilot study

Pizzagalli, Simone Luca; Kuts, Vladimir; Bondarenko, Yevhen; Otto, Tauno Proceedings of the ASME 2021 International Mechanical Engineering Congress and Exposition 2021 / paper no: IMECE2021-69408, 9 p <https://doi.org/10.1115/IMECE2021-69408>

Experimental analysis of whistle noise in a particle agglomeration pipe [Online resource]

Zhang, Zhe; **Tiikoja, Heiki;** Abom, Mats; Boden, Hans ASME 2018 Noise Control and Acoustics Division Session presented at INTERNOISE 2018 : August 26-29, 2018, Chicago, IL, USA : [Online proceedings] 2018 / Paper no. NCAD2018-6116, pp. V001T06A002, 8 p. : ill <https://doi.org/10.1115/NCAD2018-6116>

Forestry crane immersive user interface for control and teleoperation

Pizzagalli, Simone Luca; Bondarenko, Yevhen; Baykara, Baris Cem; Niidas, Alar; Kuts, Vladimir; Kerm, Margus; **Otto, Tauno** Proceedings of ASME 2022 International Mechanical Engineering Congress and Exposition (IMECE2022), 2B: Columbus, Ohio, USA, October 30 - November 3, 2022 2022 / art. IMECE2022-94975 <https://doi.org/10.1115/IMECE2022-94975>

Free fall water entry of a two-dimensional asymmetric wedge in oblique slamming : a numerical study

Hosseinzadeh, Saeed; Izadi, Mohammad; **Tabri, Kristjan** ASME 2020 : 39th International Conference on Ocean, Offshore and Arctic Engineering : Vol. 8: CFD and FSI, August 3-7, 2020 : Virtual, Online : proceedings papers 2020 / Paper No: OMAE2020-18645, V008T08A013 ; 8 pages <https://doi.org/10.1115/OMAE2020-18645> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Ice-induced loads on offshore wind turbines in the Baltic Sea

Tabri, Kristjan; Tõns, Tõnis; Suominen, Mikko; **Körgesaar, Mihkel** Proceedings of the ASME 2022 41st International Conference on Ocean, Offshore and Arctic Engineering. Volume 6: Polar and Arctic Sciences and Technology 2022 / art. OMAE2022-79035, V006T07A022; 9 pages <https://doi.org/10.1115/OMAE2022-79035>

Improved one-dimensional models for rapid emptying and filling of pipelines

Tijsseling, Arris S.; Hou, Qingzhi; Bozkus, Zafer; **Laanearu, Janek** Journal of pressure vessel technology 2016 / p. 031301-1 - 031301-11 : ill <https://doi.org/10.1115/1.4031508> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Integration of digital twins into virtual commissioning practices

Guerra Zubiaga, David; Richards, Gersom; Forsberg, Paul; Nwachukwu, Kingsley; Burroughs, Andrew; Sabula, Eric; **Kuts, Vladimir** ASME International Mechanical Engineering Congress and Exposition, Proceedings (IMECE) ; vol. 2 2024 / art. IMECE2024-145598, V002T03A076 ; 9 p <https://doi.org/10.1115/IMECE2024-145598>

Intelligent decision making approach for performance evaluation of a robot-based manufacturing cell

Kangru, Tavo; Riives, Jüri; Otto, Tauno; Pohlak, Meelis; Mahmood, Kashif ASME 2018 International Mechanical Engineering Congress and Exposition : Pittsburgh, Pennsylvania, USA, November 9–15, 2018 2018 / Paper No. IMECE2018-86666, pp. V002T02A092; 10 p. : ill <http://doi.org/10.1115/IMECE2018-86666>

Interaction of ice force in ship-ship collision

Nelis, Sander; **Tabri, Kristjan;** Kujala, Pentti ASME 2015 34th International Conference on Ocean, Offshore and Arctic Engineering : St. John's, Newfoundland, Canada, May 31–June 5, 2015 2015 / 8 p <https://doi.org/10.1115/OMAE2015-41351> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

An investigation of winter navigation and icebreaker needs in the ice-infested water: The gulf of Finland and the Gulf of Riga

Lu, Liangliang; Kondratenko, Aleksandr; Kulkarni, Ketki; Li, Fang; Kujala, Pentti Jouko Sakari; Musharraf, Mashrura Proceedings of the International Conference on Offshore Mechanics and Arctic Engineering - OMAE 2024 ; Vol. 6 2024 / OMAE2024-127955, V006T07A006 ; 8 pages <https://doi.org/10.1115/OMAE2024-127955> [Conference proceedings at Scopus](#) [Article at Scopus](#)

ISSC 2025 Committee III.1 - Compressive test of a transversely stiffened thin-plated structure with expected early nonlinear response prior to the ultimate capacity: preliminary comparison of the numerical results

Gaiotti, M.; Barsotti, B.; Brubak, L.; Chen, B. Q.; Darie, I.; Georgiadis, D.; Ishibashi, K.; **Körgesaar, Mihkel;** Lv, Y.; Nahshon, K.; Paredes, M.; Ringsberg, J. Proceedings of the International Conference on Offshore Mechanics and Arctic Engineering - OMAE 2024 ; Vol. 2: Structures, Safety, and Reliability 2024 / art. OMAE2024-126382, V002T02A087 ; 8 p. <https://doi.org/10.1115/OMAE2024-126382> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Knowledge-driven based performance analysis of robotic manufacturing cell for design improvement

Kangru, Tavo; Mahmood, Kashif; Otto, Tauno; Moor, Madis; **Riives, Jüri** ASME 2020 : International Mechanical Engineering Congress and Exposition, November 16–19, 2020 : Virtual, Online : proceedings 2020 / Paper No: IMECE2020-23541, V006T06A032 ; 8 p <https://doi.org/10.1115/IMECE2020-23541>

Level ice-structure interaction simulations using solid and shell elements

Kõrgesaar, Mihkel; Tabri, Kristjan; Avi, Eero Proceedings of the International Conference on Offshore Mechanics and Arctic Engineering - OMAE 2024 ; Vol. 6 2024 / art. v006t07a008 <https://doi.org/10.1115/OMAE2024-128141> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Limit state analyses in design of thin-walled marine structures - some aspects on length-scales

Romanoff, Jani; Remes, Heikki; Varsta, Petri; **Kõrgesaar, Mihkel** ASME 2018 37th International Conference on Ocean, Offshore and Arctic Engineering June 17–22, 2018, Madrid, Spain 2018 / Paper No. OMAE2018-78304, p. V11BT12A047, 8 p. <http://doi.org/10.1115/OMAE2018-78304>

Modeling and simulation of an electro-hydraulic servovalve in an intelligent programming environment

Harf, Mait; Grossschmidt, Gunnar 2012 Proceedings of the ASME 11th Biennial Conference on Engineering Systems Design and Analysis (ESDA2012) 2012 / p. 1-9 <https://asmedigitalcollection.asme.org/ESDA/proceedings/ESDA2012/44854/281/230755>

Modelling and simulation of fluid power systems in object-oriented programming environment

Grossschmidt, Gunnar; Harf, Mait; Sallaste, Taavi 8th Biennial ASME Conference on Engineering Systems Design and Analysis : ESDA 2006 : July 4-7, 2006, Torino, Italy : [proceedings] 2006 / paper ESDA2006-95387, [10] p <https://asmedigitalcollection.asme.org/ESDA/proceedings-abstract/ESDA2006/42495/723/317919>

Multitier digital twin approach for agile supply chain management

Ševtšenko, Eduard; Mahmood, Kashif; Karaulova, Tatjana; Raji, Oluwole Ibrahim ASME 2020 : International Mechanical Engineering Congress and Exposition, November 16–19, 2020 : Virtual, Online : proceedings 2020 / Paper No: IMECE2020-23760, 10 p <https://doi.org/10.1115/IMECE2020-23760>

Novel digital twin concept for industrial application. Study case: propulsion drive system

Jegorov, Sergei; Rassõlkin, Anton; Rjabtšikov, Viktor; Mohamed, Mahmoud Ibrahim Hassanin; Kuts, Vladimir Proceedings of ASME 2022 International Mechanical Engineering Congress and Exposition (IMECE2022), 2B: Columbus, Ohio, USA, October 30 - November 3, 2022 2022 / art. IMECE2022-97243, V02BT02A011, 6 p. <https://doi.org/10.1115/IMECE2022-97243>

Numerical and experimental investigation on flow dynamics in a pipe with an abrupt change in diameter

Anus, Ivar; Kartušinski, Aleksander; Vassiljev, Anatoli; Kaur, Katrin Journal of fluids engineering 2019 / art. 101301, 9 p. : ill <https://doi.org/10.1115/1.4043233> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Numerical assessment of novel ice breaking technology

Tabri, Kristjan; Saar, Kalju; Aanensen, Marie; Andersen, Steinar Proceedings of the International Conference on Offshore Mechanics and Arctic Engineering - OMAE 2023 ; vol. 6 2023 / art. V006T07A027 ; 9 p. : ill <https://doi.org/10.1115/OMAE2023-104670> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

On the determination of direct interchange areas in the calculation of radiant heat transfer of suspended particles

Mikk, Ilmar an ASME publication 1973 / 5 p https://www.ester.ee/record=b5716362*est

Physics based compressive sensing to enable digital twins of additive manufacturing processes

Lu, Yanglong; **Ševtšenko, Eduard;** Wang, Yan Journal of computing and information science in engineering 2021 / 031009, 30 p <https://doi.org/10.1115/1.4050377> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Planning and acquisition of real-time production data through the virtual factory in chemical industry

Raamets, Tõnis; Karjust, Kristo; Hermaste, Aigar; Mahmood, Kashif ASME 2021 International Mechanical Engineering Congress and Exposition 2021 / paper no: IMECE2021-73080, 9 p <https://doi.org/10.1115/IMECE2021-73080>

Quantitative imaging of elongated thickness defects in pipelines using ultrasonic guided wave tomography

Rasgado Moreno, Carlos Omar; Ratassepp, Madis ASME 2023 International Mechanical Engineering Congress and Exposition (IMECE2023) : proceedings. Vol. 1 2023 / art. 112228 <https://doi.org/10.1115/IMECE2023-112228>

RANS modelling in gas-solid particle vertical flow : keynote [Electronic resource]

Kartušinski, Aleksander; Michaelides, Efsthathios Proceedings of FEDSM2005 : 2005 ASME Fluids Engineering Division Summer Meeting and Exhibition : June 19-23, 2005, Houston, TX, USA 2005 / paper No.77132, p. 1-13 : ill. [CD-ROM] <https://asmedigitalcollection.asme.org/FEDSM/proceedings-abstract/FEDSM2005/41987/591/312773>

Scenario-Based Risk Management for Arctic Waters

Bergström, Martin; Browne, Thomas; Ehlers, Sören; Helle, Inari; Hermring, Hauke; Khan, Faisal; Kubiczek, Jan; Kujala, Pentti; **Kõrgesaar, Mihkel;** Leira, Bernt Johan; Parviainen, Tuuli; Polojärvi, Arttu; Suominen, Mikko; Taylor, Rocky; Tuhkuri, Jukka; Vanhatalo, Jarno; Veitch, Brian Proceedings of the ASME 2022 41st International Conference on Ocean, Offshore and Arctic

Ship collision simulations using different fracture criteria and mesh size

Körgeaar, Mihkel; Tabri, Kristjan; Naar, Hendrik; Reinhold, Edvin Proceedings of the ASME 2014 33rd International Conference on Ocean, Offshore and Arctic Engineering : OMAE2014 : June 8-13, 2014, San Francisco, California, USA 2014 / p. 1-9 : ill
<https://doi.org/10.1115/OMAE2014-23576> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

SMA-based haptic gloves usage in the smart factory concept : XR use case

Srivastava, Rupal; Kuts, Vladimir; Souza Gouveia, E. L.; Murray, Niall; Devine, Declan; O'Connell, Eoin Proceedings of ASME 2022 International Mechanical Engineering Congress and Exposition (IMECE2022), 2B: Columbus, Ohio, USA, October 30 - November 3, 2022 2022 / art. IMECE2022-94305, V02BT02A017, 10 p <https://doi.org/10.1115/IMECE2022-94305>

Some problems of calculating radiant heat transfer in furnaces

Ots, Arvo an ASME publication 1973 / 7 p. : ill https://www.ester.ee/record=b5718237*est

Synergy-based approach to bad engineering [Electronic resource]

Martin, Andres; Kaljas, Frid; Reedik, Vello Proceedings of ESDA06 : 8th Biennial Conference on Engineering Systems Design and Analysis held in Torino, Italy 2006 / [8] p. [CD-ROM] https://www.researchgate.net/publication/267493367_Synergy-Based_Approach_to_Bad_Engineering

Treatment of bending deformations in maritime crash analyses

Körgeaar, Mihkel; Storheim, Martin ASME 2020 : 39th International Conference on Ocean, Offshore and Arctic Engineering, August 3-7, 2020 : Virtual, Online : proceedings papers 2020 / Paper No: OMAE2020-19272, V02AT02A017 ; 9 pages
<https://doi.org/10.1115/OMAE2020-19272> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Water hammer and column separation due to accidental simultaneous closure of control valves in a large scale two-phase flow experimental test rig

Bergant, Anton; Westende, Jos M.C.van't; Koppel, Tiit; Gale, Janez; Hou, Qingzhi; Pandula, Zoltan; Tijsseling, Arris S. Proceedings of the ASME 2010 Pressure Vessels & Piping Division/K-PVP Conference : PVP2010 : July 18-22, 2010, Bellevue, Washington, USA 2010 / [10] p.: ill
https://www.researchgate.net/publication/280624441_Water_hammer_and_column_separation_due_to_accidental_simultaneous_closure_of_control_valves_in_a_large-scale_two-phase_flow_experimental_test_rig

Virtual simulations environment development for autonomous vehicles interaction

Malayjerdi, Mohsen; Kuts, Vladimir; Sell, Raivo; Otto, Tauno; Baykara, Baris Cem ASME 2020 : International Mechanical Engineering Congress and Exposition, November 16–19, 2020 : Virtual, Online : proceedings 2020 / Paper No: IMECE2020-23362, V02BT02A009; 5 p <https://doi.org/10.1115/IMECE2020-23362>