

Acceleration data acquisition and processing system for structural health monitoring

Herranen, Henrik; Kuusik, Alar; Saar, Tõnis; Reidla, Marko; Land, Raul; Märten, Olev; Majak, Jüri 2014 IEEE International Workshop On Metrology For Aerospace : May 29-30, 2014, Benevento, Italy : proceedings 2014 / p. 244-248 : ill

Accuracy issues of the Haar wavelet method

Mikola, Madis; Haavajõe, Anti; Arak, Marti; Majak, Jüri; Pohlak, Meelis; Shvartsman, Boris 28th Nordic Seminar on Computational Mechanics, 22-23 October, Tallinn, 2015 : proceedings of the NSCM28 2015 / p. 103-106

Adhesion measuring method optimization in reinforced composites

Karjust, Kristo; Pohlak, Meelis; Majak, Jüri Proceedings of the 8th International Conference of DAAAM Baltic Industrial Engineering, 19-21st April 2012, Tallinn, Estonia. 2 2012 / p. 633-638 : ill

An algorithm for determining forming limits of anisotropic metal sheets

Majak, Jüri; Küttner, Rein; Pohlak, Meelis NSCM-17 : proceedings of the 17th Nordic Seminar on Computational Mechanics 2004 / p. 39-42 : ill

An algorithm for localised and diffuse necking analysis

Majak, Jüri; Pohlak, Meelis; Küttner, Rein International journal of computational materials science and surface engineering 2007 / 4, p. 494-508 <https://www.inderscienceonline.com/doi/abs/10.1504/IJCMSSE.2007.016438>

Analysis and design of graphene laminates [Online resource]

Majak, Jüri; Kirs, Maarjus; Karjust, Kristo International Conference "Functional Materials and Nanotechnologies 2017" : Tartu, Estonia in April, 24-27, 2017 : book of abstracts 2017 / p. 67 http://www.ester.ee/record=b4668793*est

Analysis and design of multifunctional laminated glass composite structures

Majak, Jüri; Pohlak, Meelis; Õunapuu, Erko; Auriemma, Fabio; Rämmal, Hans; Saarts, Samo 24th International Conference on Composites/Nano-Engineering : ICCE-24 : Haikou, Hainan Island, China, July 17-23, 2016 2016 / [2] p. : ill

Analysis and design optimisation of glass structures = Klaaskonstruksioonide analüüs ning optimeerimine

Õunapuu, Erko 2019 <https://digikogu.taltech.ee/et/Item/1851ce66-14f9-486e-9153-414b75cb0495> https://www.ester.ee/record=b5284651*est

Application of artificial intelligence and machine learning for BIM : review

Bassir, David; Lodge, Hugo; Chang, Haochen; Majak, Jüri; Chen, Gonfa International journal for simulation and multidisciplinary design optimization 2023 / art. 5 <https://doi.org/10.1051/smdo/2023005> [Journal metrics at Scopus](#) [Article at Scopus](#)

Application of evolutionary methods for solving optimization problems in engineering

Majak, Jüri; Küttner, Rein; Pohlak, Meelis; Eerme, Martin; Karjust, Kristo Proceedings of NordDesign 2008 : August 21-23, 2008 2008 / p. 39-48 : ill
https://www.researchgate.net/publication/283626005_Application_of_evolutionary_methods_for_solving_optimization_problems_in_engineering

Application of HOHWM based function approximation algorithms in engineering design

Mäe, Tiina; Plamus, Tiia; Majak, Jüri; Karunanidhi, Ramachandran; Rahman, Md Toufique International conference of numerical analysis and applied mathematics ICNAAM 2021 : Rhodes, Greece, 20-26 September 2021 2023 / art. 250003
<https://doi.org/10.1063/5.0162255> [Conference Proceedings at Scopus](#) [Article at Scopus](#)

Application of the Haar wavelet based discretization technique to problems of orthotropic plates and shells

Majak, Jüri; Pohlak, Meelis; Eerme, Martin Mechanics of composite materials 2009 / 6, p. 631-642

Application of the Haar waveletbased discretization method

Majak, Jüri; Eerme, Martin; Pohlak, Meelis 5th International Conference Aplimat 2006 / p. 279-286

Application of wavelet based discretization method to elasticity and plasticity problems

Majak, Jüri; Pohlak, Meelis; Eerme, Martin 6th European Solid Mechanics Conference 2006 / ? p

Artificial neural networks and evolutionary algorithms in engineering design

Velsker, Tarmo; Majak, Jüri; Pohlak, Meelis; Eerme, Martin; Karjust, Kristo Journal of achievements in materials and manufacturing engineering 2011 / p. 88-95 : ill

Artificial neural networks and genetic algorithms in engineering design

Majak, Jüri; Pohlak, Meelis; Eerme, Martin; Küttner, Rein; Karjust, Kristo International Conference on Engineering Optimization (EngOpt 2008) : Rio de Janeiro, Brazil, 2008 : conference proceedings 2008 / [11 p] : ill
https://www.researchgate.net/publication/253023189_Artificial_neural_networks_and_genetic_algorithms_in_engineering_design

Autonomous mobile robots for production logistics: a process optimization model modification

Raamets, Tõnis; Majak, Jüri; Karjust, Kristo; Mahmood, Kashif; Hermaste, Aigar Proceedings of the Estonian Academy of

Characterisation of exponentially graded materials by ultrasound

Braunbrück, Andres; Majak, Jüri ICCS17 : 17th International Conference on Composite Structures : Portugal 17-21 June 2013 : book of abstracts 2013 / p. 55

A comparative analysis of Fuzzy AHP and Fuzzy VIKOR methods for prioritization of the risk criteria of an autonomous vehicle system

Mehrpavar, Marmar; Majak, Jüri; Karjust, Kristo Proceedings of the Estonian Academy of Sciences 2024 / p. 116-123
<https://doi.org/10.3176/proc.2024.2.04>

Comparing two wavelet approaches for solving fractional differential equations

Majak, Jüri; Kivistik, Lenart; Eerme, Martin; Tungel, Ernst International Conference of Numerical Analysis and Applied Mathematics : ICNAAM2022 : Heraklion, Freece, 19-25 September 2022 2024 / art. 230004 <https://doi.org/10.1063/5.0210415>
[Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Convergence theorem for the Haar wavelet based discretization method

Majak, Jüri; Shvartsman, Boris; Kirs, Maarjus; Pohlak, Meelis; Herranen, Henrik Composite structures 2015 / p. 227-232
<https://doi.org/10.1016/j.compstruct.2015.02.050> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Decomposition method for solving optimal material orientation problems

Majak, Jüri; Pohlak, Meelis 15th International Conference on Composite Structures : Portugal, Porto 2009 / ? p

Decomposition method for solving optimal material orientation problems

Majak, Jüri; Pohlak, Meelis Composite structures 2010 / 8, p. 1839-1845
<https://www.sciencedirect.com/science/article/pii/S0263822310000346>

Design and manufacturing of composite laminates with structural health monitoring capabilities

Herranen, Henrik; Majak, Jüri; Tšukrejev, Pavel; Karjust, Kristo; Märtens, Olev Procedia CIRP 2018 / p. 647-652 : ill
<https://doi.org/10.1016/j.procir.2018.03.128> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Design and testing of new composite from recycled GFRP

Kers, Jaan; Majak, Jüri; Goljandin, Dmitri; Saarna, Mart; Gregor, Andre; Siinmaa, A.; Tall, Kaspar 14th European Conference on Composite Materials : 7-10 June 2010, Budapest, Hungary 2010 / [10] p

Design and testing of sandwich structures with different core materials

Herranen, Henrik; Pabut, Ott; Eerme, Martin; Majak, Jüri; Pohlak, Meelis; Kers, Jaan; Saarna, Mart; Allikas, Georg; Aruniit, Aare Materials science = Medžiagotyra 2012 / p. 45-50 : ill
https://www.researchgate.net/publication/268366546_Design_and_Testing_of_Sandwich_Structures_with_Different_Core_Materials

Design of car frontal protection system using neural networks and genetic algorithm

Majak, Jüri; Pohlak, Meelis; Eerme, Martin; Velsker, Tarmo Mechanika 2012 / p. 453-460 : ill
<https://mechanika.ktu.lt/index.php/Mech/article/view/2325>

Design of functionally graded sandwich panels

Pohlak, Meelis; Majak, Jüri; Karjust, Kristo; Herranen, Henrik; Lend, Henri ICCS17 : 17th International Conference on Composite Structures : Portugal 17-21 June 2013 : book of abstracts 2013 / p. 55

Design of light-weight sandwich panels for trailers

Allikas, Georg; Kers, Jaan; Aruniit, Aare; Herranen, Henrik; Eerme, Martin; Majak, Jüri; Pohlak, Meelis; Pabut, Ott ECCM15 - 15th European Conference on Composite Materials : Venice, Italy, 24-28 June 2012 2012 / 8 p. : ill
https://www.researchgate.net/publication/290060877_Design_of_light-weight_sandwich_panel_for_trailers

Design of multifunctional laminated glass composite panel

Majak, Jüri; Pohlak, Meelis; Shvartsman, Boris; Ōunapuu, Erko; Kirs, Maarjus ICCS19 : 19th International Conference on Composite Structures : Sheraton Porto Hotel & Spa, 5-8 September 2016 : proceedings 2016 / p. 140 <http://dx.doi.org/10.15651/978-88-748-8977-8>

Design of performance characteristics on laser treated denim fabric

Mandre, Nele; Plamus, Tiia; Linder, Angelika; Varjas, Toivo; Majak, Jüri; Krumme, Andres The materials science = Medžiagotyra 2023 / 10 p. : ill <https://doi.org/10.5755/j02.ms.33259> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Design of performance characteristics on laser treated denim fabric : [conference paper]

Mandre, Nele; Plamus, Tiia; Linder, Angelika; Varjas, Toivo; Majak, Jüri; Krumme, Andres Graduate School of Functional Materials and Technology (GSFMT) Scientific Conference : abstracts 2022 / p. 36 : ill [Graduate School of Functional Materials and Technology \(GSFMT\) Scientific Conference 2022](#)

Design optimization of graphene laminates for maximum fundamental frequency

Majak, Jüri; Kirs, Maarjuss; Eerme, Martin; Tungal, Ernst; Lepikult, Toomas Proceedings of the Estonian Academy of Sciences 2017 / p. 354-362 : ill <https://doi.org/10.3176/proc.2017.4.08> https://artiklid.elnet.ee/record=b2830810*est [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Design optimization of multilayer graphene sheets

Majak, Jüri; Eerme, Martin; Arak, Marti; Kirs, Maarjuss; Mikola, Madis First International Conference on Mechanics of Composites (MECHCOMP2014) : Stony Brook University, Long Island, New York, June 8-12, 2014 2014 / p. 175

Design optimization of steel and glass structures = Metall- ja klaaskonstruksioonide optimeerimine

Velsker, Tarmo 2012

Design optimization of structural components for fatigue loading

Pabut, Ott; Eerme, Martin; Majak, Jüri; Pohlak, Meelis Proceedings of the 7th International Conference of DAAAM Baltic Industrial Engineering : 22-24th April 2010, Tallinn, Estonia. [I] 2010 / p. 131-135 : ill

Development and implementation of the key performance indicator selection model for SMEs = Väikese ja keskmise suurusega ettevõtete võtmenäitajate valimimudeli arendus ja juurutus

Kaganski, Sergei 2018 <https://digi.lib.ttu.ee/ii/?9945> https://www.ester.ee/record=b5054656*est

Development and optimisation of production monitoring system = Tootmise monitooringu süsteemi arendus ja optimeerimine

Snatkin, Aleksei 2016 https://www.ester.ee/record=b4576990*est

Development of a product lifecycle management model based on the fuzzy analytic hierarchy process

Paavel, Marko; Karjust, Kristo; Majak, Jüri Proceedings of the Estonian Academy of Sciences 2017 / p. 279-286 : ill <https://doi.org/10.3176/proc.2017.3.05> http://www.ester.ee/record=b2355998*est [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Development of equipment and mathematical model for manufacturing of steered fibre laminate = Seadmete ja matemaatilise mudeli arendamine muutuva kiuga laminaadi valmistamiseks

Haavajõe, Anti 2019 https://www.ester.ee/record=b5284222*est <https://digikogu.taltech.ee/et/Item/3328472d-4a53-4e56-a892-93453155327c>

Development of process optimization model for autonomous mobile robot used in production logistics

Majak, Jüri; Karjust, Kristo; Mahmood, Kashif; Hermaste, Aigar; Raamets, Tõnis AIP conference proceedings 2024 / art. 020008 <https://doi.org/10.1063/5.0189299> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Difficulties in SMEs and KPI selection model as solver

Kaganski, Sergei; Paavel, Marko; Karjust, Kristo; Majak, Jüri; Snatkin, Aleksei Proceedings of the 10th International Conference of DAAAM Baltic Industrial Engineering, 12-13th May 2015, Tallinn, Estonia 2015 / p. 33-38 : ill

Double-curved surface forming process modeling

Velsker, Tarmo; Majak, Jüri; Eerme, Martin; Pohlak, Meelis Proceedings of the 7th International Conference of DAAAM Baltic Industrial Engineering : 22-24th April 2010, Tallinn, Estonia. [I] 2010 / p. 257-262 : ill

Effect of aggregation methods in fuzzy technique for prioritization of criteria of automated vehicle system

Mehrparvar, Marmar; Majak, Jüri; Karjust, Kristo AIP conference proceedings 2024 / art. 020011 <https://doi.org/10.1063/5.0189323> [Journal metrics at Scopus](#) [Article at Scopus](#)

Embedded electronics influence on the strength of carbon fiber laminate

Herranen, Henrik; Kers, Jaan; Preden, Jürjo-Sören; Talalaev, Robert; Eerme, Martin; Majak, Jüri; Lend, Henri; Allikas, Georg Advances in applied materials and electronics engineering III 2014 / p. 239-243 <https://doi.org/10.4028/www.scientific.net/AMR.905.239> [Article at Scopus](#)

Empennage sizing using tail volume

Karunanidhi, Ramachandran; Scholz, Dieter; Majak, Jüri; Eerme, Martin AIP conference proceedings 2022 / art. 380007 <https://doi.org/10.1063/5.0082095> [Conference Proceedings at Scopus](#) [Article at Scopus](#)

Engineering optimization of a car frontal protection system component

Pohlak, Meelis; Majak, Jüri; Eerme, Martin Estonian journal of engineering 2009 / 1, p. 61-72 : ill

Enhanced Crack Detection in Composite Plates : Integrating Haar Wavelet Transform with Convolutional Neural Networks

Mehrparvar, Marmar; Majak, Jüri; Karjust, Kristo 6th International Conference on Multidisciplinary Design Optimization and

Applications (MDOA 2024) 2025 / art. 01008 https://www.e3s-conferences.org/articles/e3sconf/abs/2025/31/e3sconf_mdoa2025_01008/e3sconf_mdoa2025_01008.html
<https://doi.org/10.1051/e3sconf/202563101008>

Evaluation of Haar wavelet method for analysis of functionally graded and nanostructures = Haari lainikute meetodi hindamine funktsionaalgradient- ja nanostruktuuride analüüsiks

Kirs, Maarjus 2018 <https://digi.lib.ttu.ee/i/?10625> https://www.ester.ee/record=b5151220*est

Experimental evaluation and numerical modelling of the quality of photovoltaic modules

Tšukrejev, Pavel; Karjust, Kristo; Majak, Jüri Proceedings of the Estonian Academy of Sciences 2021 / p. 477-483 : ill <https://doi.org/10.3176/proc.2021.4.15> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Experimental evaluation and numerical modelling residual stresses in glass panel

Majak, Jüri; Anton, Johan; Õunapuu, Erko; Auriemma, Fabio; Pohlak, Meelis; Eerme, Martin; Klauson, Aleksander 2018 International Conference on Materials Science and Manufacturing Engineering (MSME 2018) MATEC web of conferences 2019 / art. 02003, 7 p. : ill <https://doi.org/10.1051/mateconf/201925302003>

Experimental modal analysis of maritime composite panel

Gavrijaševa, Alina; Märten, Olev; Land, Raul; Saar, Tõnis; Herranen, Henrik; Majak, Jüri; Reidla, Marko; Kuusik, Alar BEC 2016 : 2016 15th Biennial Baltic Electronics Conference : proceedings of the 15th Biennial Baltic Electronics Conference : Tallinn University of Technology, October 3-5, 2016, Tallinn, Estonia 2016 / p. 143-146 : ill http://www.ester.ee/record=b2150914*est

Experimental study of incremental forming of sheet metal products

Pohlak, Meelis; Küttner, Rein; Majak, Jüri; Karjust, Kristo; Sutt, Annes Proceedings of the 4th International Conference Industrial Engineering - New Challenges to SME : 29-30 April 2004, Tallinn, Estonia 2004 / p. 145-148 : ill

Extremes of apparent and tap densities of recovered GFRP filler materials

Kers, Jaan; Majak, Jüri; Goljandin, Dmitri; Gregor, Andre; Malmstein, M.; Vilsaar, Kristiina Composite structures 2010 / 9, p. 2097-2101 : ill <https://www.sciencedirect.com/science/article/pii/S0263822309004085>

Extremes of apparent and tap densities of recovered GFRP filler materials

Kers, Jaan; Majak, Jüri; Gregor, Andre; Malmstein, M.; Vilsaar, Kristiina 15th International Conference on Composite Structures : Portugal, Porto 2009 / ? p <https://www.sciencedirect.com/science/article/pii/S0263822309004085>

Forming limit diagrams (FLD) for anisotropic sheet metals

Majak, Jüri; Küttner, Rein; Pohlak, Meelis 13th International Conference on Mechanics of Composite Materials 2004 / p. 107-108

Free vibration analysis of tapered Timoshenko beam with higher order Haar wavelet method

Mehrpavar, Marmar; Majak, Jüri; Karjust, Kristo; Arda, Mustafa Proceedings of the Estonian Academy of Sciences 2022 / p. 77-83 : ill <https://doi.org/10.3176/proc.2022.1.07> Conference Proceedings at Scopus Article at Scopus Conference Proceedings at WOS Article at WOS

Free vibration analysis of Timoshenko beam by higher-order Haar wavelet method

Mehrpavar, Marmar; Majak, Jüri; Karjust, Kristo AIP conference proceedings 2023 / art. 250007 <https://doi.org/10.1063/5.0162269> Conference proceedings at Scopus Article at Scopus

Free vibration analysis of uniform and tapered timoshenko beam by higher-order haar wavelet method

Mehrpavar, Marmar; Majak, Jüri; Karjust, Kristo Graduate School of Functional Materials and Technology (GSFMT) Scientific Conference : abstracts 2022 / 38 I. [Graduate School of Functional Materials and Technology \(GSFMT\) Scientific Conference 2022](https://www.gsfmt.ee/abstracts/2022/38I/)

Function approximation using Haar wavelets

Majak, Jüri; Eerme, Martin; Haavajõe, Anti AIP conference proceedings 2020 / art. 230004 <https://doi.org/10.1063/5.0026543> Conference proceeding at Scopus Article at Scopus Article at WOS

Fuzzy AHP as a tool for prioritization of key performance indicators

Kaganski, Sergei; Majak, Jüri; Karjust, Kristo Procedia CIRP 2018 / p. 1227-1232 : ill <https://doi.org/10.1016/j.procir.2018.03.097> Conference Proceedings at Scopus Article at Scopus Article at WOS

Fuzzy analytical hierarchy process based environmental, social and governance risks assessment for the future phosphorite mining in Estonia

Paat, Andrus; Majak, Jüri; Karu, Veiko; Hitch, Michael William Extractive Industries and Society 2024 / art. 101438 <https://doi.org/10.1016/j.exis.2024.101438> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Haar wavelet based discretization technique for analysis and design of composite plate and shell structures

Majak, Jüri; Pohlak, Meelis; Eerme, Martin; Karjust, Kristo; Kers, Jaan 14th European Conference on Composite Materials : 7-10 June 2010, Budapest, Hungary 2010 / Paper ID: 431-ECCM14, [10] p.: ill

https://www.researchgate.net/publication/267556579_Wavelet_based_discretization_technique_for_analysis_and_design_of_composite_structures

Haar wavelet method for vibration analysis of nanobeams

Kirs, Maarjus; Mikola, Madis; Haavajõe, Anti; Õunapuu, Erko; Shvartsman, Boris; **Majak, Jüri** Waves, wavelets and fractals : advanced analysis 2016 / p. 20-28 : ill <https://doi.org/10.1515/wwfaa-2016-0003>

Higher order Haar wavelet method for vibration analysis of functionally graded beam

Mikola, Madis; Majak, Jüri; Pohlak, Meelis; Shvartsman, Boris AIP Conference Proceedings 2022 / art. 380003
<https://doi.org/10.1063/5.0081476> [Conference Proceedings at Scopus](#) [Article at Scopus](#)

Higher-order Haar wavelet method for vibration analysis of nanobeams

Majak, Jüri; Shvartsman, Boris; **Ratas, Mart;** Bassir, David; **Pohlak, Meelis; Karjust, Kristo; Eerme, Martin** Materials today communications 2020 / art. 101290, 6 p. : tab <https://doi.org/10.1016/j.mtcomm.2020.101290> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Human-robot interaction : a conceptual framework for safety/risk analysis

Matsulevitš, Johannes; Majak, Jüri; Eerme, Martin; Sarkans, Martinš; Dunajeva, Olga; Kristjuhan-Ling, Kadri; Raamets, Tõnis; Kekšin, Vjatšeslav Proceedings of the Estonian Academy of Sciences 2025 / p. 137-142
<https://doi.org/10.3176/proc.2025.2.09>

Implementation of key performance indicators selection model as part of the enterprise analysis model

Kaganski, Sergei; Majak, Jüri; Karjust, Kristo; Toompalu, Silver Procedia CIRP 2017 / p. 283-288 : ill
<https://doi.org/10.1016/j.procir.2017.03.143> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Implementing an AI-based digital twin analysis system for real-time decision support in a custom-made sportswear SME

Raamets, Tõnis; Karjust, Kristo; Majak, Jüri; Hermaste, Aigar Applied sciences 2025 / art. 7952
<https://doi.org/10.3390/app15147952>

Incremental sheet forming process modelling - limitation analysis

Pohlak, Meelis; Majak, Jüri; Küttner, Rein Proceedings M2D'2006: 5th International Conference on Mechanics and Materials in Design : Faculty of Engineering, University of Porto, Portugal, 24-26 July 2006 2006 / p. 1-12 : ill

Incremental sheet forming process modelling - limitation analysis

Pohlak, Meelis; Majak, Jüri; Küttner, Rein Journal of achievements in materials and manufacturing engineering 2007 / 2, p. 67-70 : ill

Influence of hollow glass microspheres on the mechanical and physical properties and cost of particle reinforced polymer composites

Aruniit, Aare; Kers, Jaan; Majak, Jüri; Krumme, Andres; Tall, Kaspar Proceedings of the Estonian Academy of Sciences 2012 / p. 160-165 : ill https://artiklid.elnet.ee/record=b2535363*est

Komplekssete tehniliste süsteemide optimaalne projekteerimine - toodete konkursivõime tagamise eeltingimus

Küttner, Rein; Eerme, Martin; Karjust, Kristo; Majak, Jüri; Pohlak, Meelis Teadusmõte Eestis. 4, Tehnikateadused. 2 2007 / lk. 71-80 : ill

Longitudinal wave propagation in axially graded Rayleigh–Bishop nanorods

Arda, Mustafa; Majak, Jüri; Mehrparvar, Marmar Mechanics of composite materials 2024 / p. 1109-1128
<https://doi.org/10.1007/s11029-023-10160-4> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Manufacturability and limitations in incremental sheet forming

Pohlak, Meelis; Majak, Jüri; Küttner, Rein Proceedings of the Estonian Academy of Sciences. Engineering 2007 / 2, p. 129-139 : ill

Manufacturability issues in incremental sheet forming

Pohlak, Meelis; Majak, Jüri; Küttner, Rein Proceedings of the 5th International Conference of DAAAM Baltic : Industrial Engineering - Adding Innovation Capacity of Labour Force and Entrepreneur : 20-22 April 2006, Tallinn, Estonia 2006 / p. 157-162 : ill

Material parameters identification by use of hybrid GA

Majak, Jüri; Toompalu, S.; Pohlak, Meelis Journal of achievements in materials and manufacturing engineering 2008 / 1, p. 63-66 : ill https://www.researchgate.net/publication/26872864_Material_parameters_identification_by_use_of_hybrid_GA

Modeling constitutive relation for woven polymer-based composites

Majak, Jüri; Pohlak, Meelis; Küttner, Rein; Eerme, Martin; Herranen, Henrik NATO Advanced Research Workshop : Textile Composites : May 18-22, 2009, Kiev, Ukraine 2009 / [3] p

Modelling a new composite from a recycled GFRP

Kers, Jaan; Majak, Jüri Mechanics of composite materials 2008 / 6, p. 623-632 : ill

<https://ui.adsabs.harvard.edu/abs/2008MCM....44..623K/abstract>

Modelling and optimal design of sheet metal RPAMP processes

Pohlak, Meelis; Küttner, Rein; Majak, Jüri Rapid prototyping journal 2005 / 5, p. 304-311 : ill

<https://www.proquest.com/docview/214029707?sourcetype=Scholarly%20Journals>

Modelling and optimal design of sheet metal RPAMP processes

Küttner, Rein; Pohlak, Meelis; Majak, Jüri 10th European Forum on Rapid Prototyping 2004 / p. 7

<https://www.proquest.com/docview/214029707?sourcetype=Scholarly%20Journals>

Modelling and optimal design of the incremental forming process

Pohlak, Meelis; Küttner, Rein; Majak, Jüri Proceedings of the Estonian Academy of Sciences. Engineering 2004 / 4, p. 261-269 : ill

Modelling and testing of the properties of recovered composite material

Kers, Jaan; Goljandin, Dmitri; Tall, Kaspar; Aruniit, Aare; Adoberg, Eron; Saarna, Mart; Majak, Jüri Proceedings of the Tenth International Conference on Computational Structures Technology : Valencia, Spain, 14-17 September 2010 2010 / Paper 81

https://www.researchgate.net/publication/269140253_Modelling_and_Testing_of_the_Properties_of_Recovered_Composite_Material

Modelling FGM materials. An accurate function approximation algorithms

Majak, Jüri; Mikola, Madis; Pohlak, Meelis; Eerne, Martin; Karunanidhi, Ramachandran IOP conference series : materials science and engineering 2021 / art. 012013, 6 p <https://doi.org/10.1088/1757-899X/1140/1/012013>

Multicriteria optimization of large composite parts

Pohlak, Meelis; Majak, Jüri; Küttner, Rein; Karjust, Kristo 15th International Conference on Composite Structures ICCS 15 : University of Porto, Porto, Portugal, 15-17 June 2009 2009 / p. 1-2

Multi-criteria optimization of large composite parts

Pohlak, Meelis; Majak, Jüri; Karjust, Kristo; Küttner, Rein Composite structures 2010 / 9, p. 2146-2152 : ill

<https://www.sciencedirect.com/science/article/abs/pii/S0263822309003791>

Multi-layer cyber-physical control method for mobile robot safety systems

Pikner, Heiko; Sell, Raivo; Majak, Jüri; Karjust, Kristo Proceedings of the Estonian Academy of Sciences 2021 / p. 383-391 : ill

<https://doi.org/10.3176/proc.2021.4.03> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Multi-objective topology optimization of weight critical structures

Pohlak, Meelis; Majak, Jüri; Pääsuke, Kaarel; Eerne, Martin; Kõiv, Risto 16th International Conference on Composite Structures (ICCS16) : Porto, 28-30 June 2011 2011

Multistage optimisation strategy for solving production planning problems

Küttner, Rein; Majak, Jüri Control applications of optimization. Vol. 7, part 1 2009 / p. 332-337 : ill

Nanoscale vibration analysis of graphene sheets using nonlocal elasticity theory

Majak, Jüri; Pohlak, Meelis; Eerne, Martin; Kers, Jaan Proceedings of the International Conference on Mechanics of Nano, Micro and Macro Composite Structures : 18 to 20 June 2012 2012 / [1] p

Nanoscale vibration analysis of graphene sheets using nonlogical elasticity theory

Majak, Jüri; Kirs, Maarjuss; Mikola, Madis; Heero, Marek; Herranen, Henrik ICCE 21 proceedings 2013

Nanoscale vibration analysis of orthotropic graphene sheets

Majak, Jüri; Eerne, Martin; Lepikult, Toomas; Tungel, Ernst ICCS17 : 17th International Conference on Composite Structures : Portugal 17-21 June 2013 : book of abstracts 2013

New higher order Haar wavelet method : application to FGM structures

Majak, Jüri; Pohlak, Meelis; Karjust, Kristo; Eerne, Martin; Kurnitski, Jarek; Shvartsman, Boris Composite Structures 2018 / p. 72-78 : tab <https://doi.org/10.1016/j.compstruct.2018.06.013> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Numerical analysis of dynamics of flight of the fragments

Kivistik, Lenart; Eerne, Martin; Majak, Jüri; Kirs, Maarjuss AIP conference proceedings 2024 / art. 030016

<https://doi.org/10.1063/5.0189331> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Numerical analysis of nonlinear wave propagation = Mittelineaarse lainelevi numbriline analüüs

Ratas, Mart 2020 https://www.eester.ee/record=b5391019*est <https://digikogu.taltech.ee/et/Item/96b84b2f-8dc3-4c25-8c58-a5dde59d14ea>

Numerical method for stability analysis of functionally graded beams on elastic foundation

Shvartsman, Boris; **Majak, Jüri** Applied Mathematical Modelling 2016 / p. 3713 - 3719 <https://doi.org/10.1016/j.apm.2015.09.060>
[Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#)

Numerical method for stability analysis of functionally graded columns

Shvartsman, B.S.; **Majak, Jüri; Kirs, Maarjus** Proceedings of the 9th International Conference of DAAAM Baltic Industrial Engineering, 24-26th April 2014, Tallinn, Estonia 2014 / p. 65-70 : ill

Numerical modeling of fragment flight dynamics

Kivistik, Lenart; Mehrparvar, Marmar; Eerme, Martin; Dieves, Veiko; Majak, Jüri Proceedings of the Estonian Academy of Sciences 2025 / p. 120-125 <https://doi.org/10.3176/proc.2025.2.06>

Numerical solution of a class of fractional delay differential equations via haar wavelet

Aziz, Imran; Amin, Rohul; **Majak, Jüri** Proceedings of the 11th International Conference of DAAAM Baltic Industrial Engineering : 20-22th April 2016, Tallinn, Estonia 2016 / p. 8-12 <http://innomet.ttu.ee/daaam/>

On accuracy of the Haar wavelet method

Majak, Jüri; Shvartsman, Boris; Pohlak, Meelis; Eerme, Martin; Kirs, Maarjus Mathematical modelling and analysis 2016 : abstracts 2016 / p. 50 http://www.ester.ee/record=b4573512*est

On the accuracy of the Haar wavelet discretization method

Majak, Jüri; Shvartsman, Boris; Karjust, Kristo; Mikola, Madis; Haavajõe, Anti; Pohlak, Meelis Composites Part B : Engineering 2015 / p. 321-327 : tab <https://doi.org/10.1016/j.compositesb.2015.06.008> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Optimal adhesion area of the glass-fiber reinforcement layer

Karjust, Kristo; Pohlak, Meelis; Majak, Jüri 14th European Conference on Composite Materials : 7-10 June 2010, Budapest, Hungary 2010 / [10] p

Optimal adhesion measuring methods of the glass fibre reinforcement layer

Karjust, Kristo; Pohlak, Meelis; Majak, Jüri Estonian journal of engineering 2010 / 4, p. 297-306 : ill

Optimal adhesion measuring methods of the glass-fiber reinforcement layer

Karjust, Kristo; Pohlak, Meelis; Majak, Jüri Proceedings of the 7th International Conference of DAAAM Baltic Industrial Engineering : 22-24th April 2010, Tallinn, Estonia. [1] 2010 / p. 232-237 : ill

Optimal material orientation of linear and non-linear elastic 3D anisotropic materials

Majak, Jüri; Pohlak, Meelis Proceedings of Second International Conference on Multidisciplinary Design Optimization and Applications : Gijon, Spain, 3-5 September 2008 2008 / p. 1-11 : ill

Optimal material orientation of linear and non-linear elastic 3D anisotropic materials

Majak, Jüri; Pohlak, Meelis Meccanica 2010 / 5, p. 671-680 : ill
https://www.researchgate.net/publication/225119702_Optimal_material_orientation_of_linear_and_non-linear_elastic_3D_anisotropic_materials

Optimal product development and manufacturing engineering

Küttner, Rein; Majak, Jüri; Karjust, Kristo; Pohlak, Meelis; Eerme, Martin Research in Estonia : present and future 2011 / p. 227-248 : ill

Optimization of car frontal protection system

Pohlak, Meelis; Majak, Jüri; Eerme, Martin International journal for simulation and multidisciplinary design optimization 2007 / p. 31-37 https://www.researchgate.net/publication/245491476_Optimization_of_car_frontal_protection_system

Optimization of car frontal protection systems

Pohlak, Meelis; Majak, Jüri; Eerme, Martin Proceedings of the 6th International Conference of DAAAM Baltic "Industrial Engineering" : 24-26th April 2008, Tallinn, Estonia. [1] 2008 / p. 123-128 : ill
https://www.researchgate.net/publication/245491476_Optimization_of_car_frontal_protection_system

Optimization study of car frontal protection system

Pohlak, Meelis; Majak, Jüri; Eerme, Martin ASMDO : First International Conference on Multidisciplinary Design Optimization and Applications : 17-20 April 2007, Besancon, France 2007 / ? p <https://www.ijsmdo.org/articles/smdo/abs/2007/01/smdo0706/smdo0706.html>

Optimization study of composite bathtub

Pohlak, Meelis; Majak, Jüri; Karjust, Kristo; Küttner, Rein Proceedings of Second International Conference on Multidisciplinary Design Optimization and Applications : Gijon, Spain, 3-5 September 2008 2008 / p. 1-10 : ill

Oriental design of non-orthotropic 2-D materials

An overview of smart workplace solutions and potential improvement areas

Kelpman, Karolin; Karjust, Kristo; Majak, Jüri Proceedings of the Estonian Academy of Sciences 2025 / p. 155-159

<https://doi.org/10.3176/proc.2025.2.13>

Particulate filled composite plastic materials from recycled GFRP

Kers, Jaan; Goljandin, Dmitri; Saarna, Mart; Aruniit, Aare; Tall, Kaspar; Majak, Jüri Baltic Polymer Symposium 2010 : Palanga, September 8-11, 2010 : programme and abstracts 2010 / p. 15

Particulate filled composite plastic materials from recycled glass fibre reinforced plastics

Aruniit, Aare; Kers, Jaan; Goljandin, Dmitri; Saarna, Mart; Tall, Kaspar; Majak, Jüri; Herranen, Henrik Materials science = Medžiagotyra 2011 / p. 276-281 : ill

Photovoltaic modules, design and manufacturing = Fotoelektrilised moodulid, disain ja tootmine

Tšukrejev, Pavel 2023 <https://doi.org/10.23658/taltech.45/2023> <https://digikogu.taltech.ee/et/Item/a5fe0434-e0d3-4bec-9a61-4444d3d51901>
https://www.ester.ee/record=b5574956*est

Plate model for multifunctional laminated glass composite panel

Majak, Jüri; Pohlak, Meelis; Shvartsman, Boris; Õunapuu, Erko; Kirs, Maarjus ICCS19 : 19th International Conference on Composite Structures : Sheraton Porto Hotel & Spa, 5-8 September 2016 : proceedings 2016 / p. 140 <http://dx.doi.org/10.15651/978-88-748-8977-8>

PLM maturity model development and implementation in SME

Paavel, Marko; Karjust, Kristo; Majak, Jüri Procedia CIRP 2017 / p. 651-657 <https://doi.org/10.1016/j.procir.2017.03.144> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Preface : Computational Mechanics

Majak, Jüri; Sciuva, M. D. AIP conference proceedings 2020 / art. 230001 <https://doi.org/10.1063/5.0026521> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Preface of the “Symposium on Numerical Analysis and Optimal Design of Materials and Structures”

Majak, Jüri; Bassir, David AIP Conference Proceedings 2022 / art. 380001 <https://doi.org/10.1063/5.0081481> [Conference Proceedings at Scopus](#) [Article at Scopus](#)

Preface: Computational mechanics. Analysis and design optimization

Majak, Jüri International Conference on Numerical Analysis and Applied Mathematics (ICNAAM 2018), 13–18 September 2018 2019 / art. 330001 <https://doi.org/10.1063/1.5114339> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Prioritization of key performance indicators for small and medium enterprises

Kaganski, Sergei; Karjust, Kristo; Majak, Jüri Proceedings of the 11th International Conference of DAAAM Baltic Industrial Engineering : 20-22th April 2016, Tallinn, Estonia 2016 / p. 25-30 : ill <http://innomet.ttu.ee/daaam/>

Product lifecycle management maturity model development = Toote elutsükli halduse küpsusmudeli arendus

Paavel, Marko 2018 <https://digi.lib.ttu.ee/i/?9949> https://www.ester.ee/record=b5056151*est

Production monitoring system development and modification

Snatkin, Aleksei; Eiskop, Tanel; Karjust, Kristo; Majak, Jüri Proceedings of the Estonian Academy of Sciences 2015 / p. 567-580 : ill https://artiklid.elnet.ee/record=b2750888*est <https://doi.org/10.3176/proc.2015.4S.04> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Quality of photovoltaic modules, experimental evaluation and mathematical modelling

Tšukrejev, Pavel; Karjust, Kristo; Majak, Jüri IOP conference series : materials science and engineering 2021 / art. 012044, 7 p. : ill <https://doi.org/10.1088/1757-899X/1140/1/012044>

Real time production monitoring system in SME

Snatkin, Aleksei; Karjust, Kristo; Majak, Jüri; Aruväli, Tanel; Eiskop, Tanel Estonian journal of engineering 2013 / p. 62-75 <https://doi.org/10.3176/eng.2013.1.06> [Article at Scopus](#)

Real-time crack detection on concrete using non-destructive approaches based on Yolo series : Review

Bassir, David; Chang, Haochen; Majak, Jüri Advances in Machinery, Materials Science and Engineering Application X : Proceedings of the 10th International Conference (MMSE 2024), Paris, France, 27–28 July 2024 2024 / p. 820-826 <https://doi.org/10.3233/ATDE240712> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Real-time monitoring of solar modules manufacturing

Tšukrejev, Pavel; Kruuser, Kaarel; Gorbachev, Georgy; Karjust, Kristo; Majak, Jüri International journal of engineering research

Safety system assessment case study of automated vehicle shuttle

Pikner, Heiko; Sell, Raivo; Majak, Jüri; Karjust, Kristo Electronics (Switzerland) 2022 / art. 1162

<https://doi.org/10.3390/electronics11071162> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Selection of parameters in adhesive bonding of composite structures

Kers, Jaan; Saarna, Mart; Peetsalu, Priidu; Aruniit, Aare; Majak, Jüri; Pohlak, Meelis; Herranen, Henrik 20th International Baltic Conference Materials Engineering 2011, October 27-28, Kaunas, Lithuania : book of abstracts 2011 / p. 53

A simple algorithm for formability analysis

Majak, Jüri; Pohlak, Meelis; Küttner, Rein Journal of achievements in materials and manufacturing engineering 2007 / 1, p. 57-60 :

ill https://www.researchgate.net/publication/40784145_A_simple_algorithm_for_formability_analysis

Simulation of incremental forming of sheet metal products

Pohlak, Meelis; Küttner, Rein; Majak, Jüri; Karjust, Kristo; Sutt, Annes Proceedings of the 4th International Conference Industrial Engineering - New Challenges to SME : 29-30 April 2004, Tallinn, Estonia 2004 / p. 149-151 : ill

Simulation of incremental forming processes of sheet metal

Pohlak, Meelis; Küttner, Rein; Majak, Jüri Proceedings of 3th International Conference on Advances in Production Engineering : Warsaw, Poland, June 17-19, 2004. Part II 2004 / p. 133-140

Solution of fractional order differential equation by the Haar wavelet method. Numerical convergence analysis for most commonly used approach

Majak, Jüri; Shvartsman, Boris; Pohlak, Meelis; Karjust, Kristo; Eerme, Martin; Tungel, Ernst International Conference of Numerical Analysis and Applied Mathematics 2015 (ICNAAM 2015) : 22-28 September 2015, Rhodes, Greece 2016 / p. 480110-1 - 480110-4 <https://doi.org/10.1063/1.4952346> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Solving nonlinear boundary value problems using the higher order Haar wavelet Method

Ratas, Mart; Majak, Jüri; Salupere, Andrus Mathematics 2021 / art. 2809 <https://doi.org/10.3390/math9212809> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Solving nonlinear PDEs using the higher order Haar wavelet method on nonuniform and adaptive grids

Ratas, Mart; Salupere, Andrus; Majak, Jüri Mathematical modelling and analysis 2021 / p. 147-169

<https://doi.org/10.3846/mma.2021.12920> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Solving ordinary differential equations with higher order Haar wavelet method

Majak, Jüri; Pohlak, Meelis; Eerme, Martin; Shvartsman, Boris AIP conference proceedings 2019 / art. 330002

<https://doi.org/10.1063/1.5114340> [Conference proceeding at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Static response and buckling loads of multilayered composite beams using the refined Zigzag theory and Higher-Order Haar Wavelet method

Sorrenti, M.; Di Sciua, M.; Majak, Jüri; Auriemma, Fabio Mechanics of composite materials 2021 / 18 p

<https://doi.org/10.1007/s11029-021-09929-2> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Stationary of the strain energy density in anisotropic solids

Majak, Jüri; Pohlak, Meelis World journal of engineering 2011 / p. 765-766

<https://www.sciencedirect.com/science/article/abs/pii/S0020768303003718>

Stationary of the strain energy density in anisotropic solids

Majak, Jüri; Pohlak, Meelis 8th World Congress on Structural and Multidisciplinary Optimization 2009 / ? p

A symbolic-numerical algorithm for material parameter identification

Majak, Jüri; Pohlak, Meelis; Küttner, Rein; Eerme, Martin; Karjust, Kristo; Kers, Jaan Proceedings of the Tenth International Conference on Computational Structures Technology : Valencia, Spain, 14-17 September 2010 2010 / Paper 133

Symbolic-numerical algorithm for material parameters identification

Majak, Jüri; Küttner, Rein; Pohlak, Meelis First International Conference on Multidisciplinary Design Optimization and Applications : 17-20 April 2007, Besancon, France : book of abstracts 2007 / p. 68 https://www.researchgate.net/publication/269140167_A_Symbolic-Numerical_Algorithm_for_Material_Parameter_Identification

Technology route planning of large composite parts

Karjust, Kristo; Pohlak, Meelis; Majak, Jüri International journal of material forming 2010 / Suppl. 1, p. 631-634 : ill

<https://link.springer.com/article/10.1007/s12289-010-0849-2>

The influence of embedded electronics on the structural performance in carbon fiber laminates

Herranen, Henrik; Kers, Jaan; Preden, Jürjo-Sören; Talalaev, Robert; Eerme, Martin; Majak, Jüri; Pohlak, Meelis; Allikas, Georg; Pabut, Ott; Lend, Henri Proceedings of the International Conference on Mechanics of Nano, Micro and Macro Composite Structures : 18 to 20 June 2012 2012 / [2 p.]

TTÜ masinaehituse instituut : tööstuse konkurentsivõime tõstmine

Otto, Tauno; Lavrentjev, Jüri; Majak, Jüri TTÜ mehaanikateaduskond. Eesti Masinatööstuse Liit 2011 / lk. 33-42 : ill., fot
http://www.ester.ee/record=b2720689*est

Using stochastic optimization for modelling of the new composite from recycled GFP

Kers, Jaan; Goljandin, Dmitri; Majak, Jüri Proceedings of the 6th International Conference of DAAAM Baltic "Industrial Engineering" : 24-26th April 2008, Tallinn, Estonia. [2] 2008 / p. 461-466 : ill

Wavelet based discretization method for solving linear and nonlinear elasticity problems [Electronic resource]

Majak, Jüri; Pohlak, Meelis; Lepikult, Toomas III European Conference on Computational Mechanics 2006 / [CD-ROM]

Wavelet based discretization technique for analysis and design of composite structures

Majak, Jüri; Kers, Jaan; Pohlak, Meelis; Eerme, Martin; Luiga, K. The 18th International Conference on Composite Materials. Composite materials : key to the future 2011 / [6] p

Wavelet discretization based elasticity solutions to some orthotropic plate and shell problems

Majak, Jüri; Pohlak, Meelis; Eerme, Martin XIV International Conference Mechanics of Composite Materials 2006 / p. 121

Weak formulation based Haar wavelet method for solving differential equations

Majak, Jüri; Pohlak, Meelis; Eerme, Martin; Lepikult, Toomas Applied mathematics and computation 2009 / p. 488-494