

AI systems to ensure cyber security in space

Pelin Manti, Nebile; **Carlo, Antonio**; Markova, Rada; Jha, Devanshu; Breda, Paola; Abdin, Adam; Boschetti, Nicolo IAC 2022 congress proceedings 2022 / art. 70423 <https://dl.iafastro.directory/event/IAC-2022/paper/70423/> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Analysis of Industry 4.0 capabilities: a perspective of educational institutions and needs of industry

Mahmood, Kashif; Otto, Tauno; Kristensen, Jesper H.; Heidemann Lassen, Astrid; Brunoe, Thomas D.; Schou, Casper; Christiansen, Lasse; Laursen, Esben Skov Towards Sustainable Customization : Bridging Smart Products and Manufacturing Systems : proceedings of the 8th Changeable, Agile, Reconfigurable and Virtual Production Conference (CARV2021) and the 10th World Mass Customization & Personalization Conference (MCPC2021), Aalborg, Denmark, October/November 2021 2022 / p. 887–894 https://doi.org/10.1007/978-3-030-90700-6_101 [Conference proceedings at Scopus](#) [Article at Scopus](#)

Any dynamical system is fully accessible through one single actuator and related problems

Kawano, Yu; **Kotta, Ülle**; Moog, Claude International journal of robust and nonlinear control 2016 / p. 1748-1754 <https://doi.org/10.1002/rnc.3379> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Crashworthiness performance of stiffened bottom tank structure subjected to impact loading conditions : ship-rock interaction

Prabowo, Aditya Rio; Sohn, Jung Min; **Putranto, Teguh** Curved and Layered Structures 2019 / p. 245–258 : ill <https://doi.org/10.1515/cls-2019-0016> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Cyber range and digital twin technologies for space resiliency and security

Carlo, Antonio; Manti, Nebile Pelin; Edl, András; Bintang Alam Semesta Wisran, A.M.; Breda, Paola 57th IAA Symposium on Safety, Quality and Knowledge Management in Space Activities : held at the 75th International Astronautical Congress (IAC 2024) : Milan, Italy, 14-18 October 2024 2024 / p. 322-332 <https://doi.org/10.52202/078376-0032> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Cyber vulnerabilities and risks of AI technologies in space applications

Breda, Paola; Abdin, Adam; Markova, Rada; Jha, Devanshu; **Carlo, Antonio**; Pelin Manti, Nebile IAC 2022 congress proceedings 2022 / art. 70380 <https://dl.iafastro.directory/event/IAC-2022/paper/70380/> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Developing gravity model for airline regional route modelling

Nömmik, Allan; Kukemelk, Sven Aviation 2016 / p. 32-37 <https://doi.org/10.3846/16487788.2016.1168007> [Journal metrics at Scopus](#) [Article at Scopus](#)

Development of anti-lock braking system (ABS) for vehicles braking

Vu, Trieu Minh; Oamen, Godwin; Vassiljeva, Kristina; Teder, Leo Open engineering 2016 / p. 554-559 : ill <https://doi.org/10.1515/eng-2016-0078> [Journal metrics at Scopus](#) [Article at Scopus](#)

Development of quality and knowledge management system for the first satellite mission in an educational institution based on ECSS standards

Vihmand, Mart; Dihuliya, Divya; Ehrminger, Robin 66th International Astronautical Congress 2015 (IAC 2015) : Space - The Gateway for Mankind's Future, Jerusalem, Israel, 12-16 October 2015 2015 / p. 9717-9719 <https://iafastro.directory/iac/paper/id/31145/summary/> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Do regional airlines in Eastern Europe have the right to survive in the European single sky environment?

Kukemelk, Sven Aviation 2017 / p. 155-161 <https://doi.org/10.3846/16487788.2017.1415226> [Journal metrics at Scopus](#) [Article at Scopus](#)

Efficiency optimization of mini unmanned multicopter

Penkov, Igor; Aleksandrov, Dmitri International review of aerospace engineering 2017 / p. 277-281 : ill <https://doi.org/10.15866/irease.v10i5.12132> [Journal metrics at Scopus](#) [Article at Scopus](#)

Electric sail test cube–lunar nanospacecraft, ESTCube-LuNa : solar wind propulsion demonstration mission concept

Slavinskis, Andris; Palos, Mario F.; Dalbins, Janis; Janhunen, Pekka; Tajmar, Martin; Ivchenko, Nickolay; Rohtsalu, Agnes; Micciani, Aldo; Orsini, Nicola; Moor, Karl Mattias; **Kristmann, Katriin** Aerospace 2024 / art. 230 <https://doi.org/10.3390/aerospace11030230> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

ESTCube-1 in-orbit experience and lessons learned

Slavinskis, Andris; Pajusalu, Mihkel; Kuuste, Henri; Ilbis, Erik; Eenmäe, Tõnis; Sunter, Indrek; Laizans, Kaspars; **Ehrpais, Hendrik; Liias, Paul**; Kulu, Erik IEEE aerospace and electronic systems magazine 2015 / art. 7286959, p. 12-22 : ill <https://doi.org/10.1109/MAES.2015.150034> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

ESTCube-1 nanosatellite for electric solar wind sail demonstration in low Earth Orbit

Kulu, Erik; Slavinskis, Andris; Kvell, Urmas; Pajusalu, Mihkel; Kuuste, Henri; Sünter, Indrek; Ilbis, Erik; Eenmäe, Tõnis; Laizāns, Kaspars; **Vahter, Andres**; Eilonen, Elo; Kalde, Jaanus; **Liias, Paul**; Sisask, Andreas; Kimmel, Lauri; Allik, Viljo; Latt, Silver; Noorma,

Mart 64th International Astronautical Congress 2013 (IAC 2013) : Beijing, China, 23 - 27 September 2013 / p. 3898 - 3902
https://www.researchgate.net/publication/289349984_ESTCube-1_nanosatellite_for_electric_solar_wind_sail_demonstration_in_low_Earth_Orbit
[Conference Proceedings at Scopus](#) [Article at Scopus](#)

Event-triggered resilient distributed extended Kalman filter with consensus on estimation

Rezaei, Hossein; **Ghorbani, Majid** International Journal of Robust and Nonlinear Control 2022 / p. 1303 - 1315
<https://doi.org/10.1002/rnc.5881> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

An extended review on cyber vulnerabilities of AI technologies in space applications: Technological challenges and international governance of AI

Breda, Paola; Markova, Rada; Abdin, Adam; Manti, Nebile Pelin; **Carlo, Antonio**; Jha, Devanshu Journal of space safety engineering 2023 / p. 447-458 : ill <https://doi.org/10.1016/j.jsse.2023.08.003> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Feature article: Firmware updating systems for nanosatellites

Sünter, Indrek; Slavinskis, Andris; Kvell, Urmas; **Vahter, Andres**; Kuuste, Henri; Noorma, Mart; Kutt, Johan; Vendt, Riho; Tarbe, Karl; Pajusalu, Mihkel; Veske, Mihkel; Ilves, Taavi IEEE Aerospace and Electronic Systems Magazine 2016 / p. 36 - 44
<https://doi.org/10.1109/MAES.2016.150162> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

The future of entrepreneurship : bridging the innovation skills gap through digital learning

Prokopenko, Olha; **Järvis, Marina**; Bielialov, Taliat; Omelyanenko, Vitaliy; Malheiro, Teresa Innovations in industrial engineering III 2024 / p. 206-230 https://doi.org/10.1007/978-3-031-61582-5_18 [Conference Proceedings at Scopus](#) [Article at Scopus](#)

Geodesic equations for guided wave helical path separation for a pipe bend

Rasgado Moreno, Carlos Omar; Ratassepp, Madis Mechanical systems and signal processing 2023 / art. 110820
<https://doi.org/10.1016/j.ymssp.2023.110820> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Going digital, staying secure : cyber ERM activities in a post-pandemic setup

Carlo, Antonio; Casamassima, Francesca IAC 2022 congress proceedings 2022 / art. 70417
<https://iafastro.directory/iac/paper/id/70417/summary/> [Conference proceedings at Scopus](#) [Article at Scopus](#)

High-efficiency single-stage onboard charger for electrical vehicles

Zinchenko, Denys; Blinov, Andrei; Chub, Andrii; Vinnikov, Dmitri; Verbytskyi, Ievgen; Bayhan, Sertac IEEE Transactions on Vehicular Technology 2021 / p. 12581-12592 : ill <https://doi.org/10.1109/TVT.2021.3118392> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

The importance of cybersecurity frameworks to regulate emergent AI technologies for space applications

Carlo, Antonio; Manti, Nebile Pelin; Bintang, A. S. W. A. M.; Casamassima, Francesca; Boschetti, Nicolo; Breda, Paola; Rahloff, Tobias Journal of space safety engineering 2023 / p. 474-482 : ill <https://doi.org/10.1016/j.jsse.2023.08.002> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Influence of miniflaps on sailplane flight characteristics

Lauk, Peep; Unt, Karl-Eerik Aviation 2015 / p. 105-111 : ill <https://doi.org/10.3846/16487788.2015.1104793> [Journal metrics at Scopus](#) [Article at Scopus](#)

Measurement feedback disturbance decoupling in discrete-event systems

Kaldmäe, Arvo; Kotta, Ülle; Shumsky, Alexey; Zhirabok, Alexey International journal of robust and nonlinear control 2015 / p. 3330-3348 <https://doi.org/10.1002/rnc.3265> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Monograin layer solar cell for future lunar outpost

Kristmann, Katriin; Altosaar, Mare; Raudoja, Jaan; Grossberg, Maarja; Krustok, Jüri; Raadik, Taavi IAC 2020 congress proceedings Proceedings of the International Astronautical Congress, IAC 2020 / 7 p. : ill [Monograin layer solar cell for future lunar outpost](#) <https://dl.iafastro.directory/event/IAC-2020/paper/56905/> [Conference proceeding at Scopus](#) [Article at Scopus](#)

A new approach to edge stress measurement in tempered glass panels

Aben, Hillar; Lochegnies, Dominique; Chen, Y.; **Anton, Johan**; Paemurru, Mart; **Öis, Marella** Experimental mechanics 2015 / p. 483-486 : ill <https://doi.org/10.1007/s11340-014-9950-7> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Nonlinear dynamics in PEH for enhanced power output and vibration suppression in metastructures

Alimohammadi, Hossein; Vassiljeva, Kristina; HosseinNia, S. Hassan; **Petlenkov, Eduard** Nonlinear Dynamics 2024 / p. 12941 - 12963 <https://doi.org/10.1007/s11071-024-09739-w> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Pattern formation of elastic waves and energy localization due to elastic gratings

Berezovski, Arkadi; Engelbrecht, Jüri; Berezovski, Mihail International journal of mechanical sciences 2015 / p. 137-144 : ill

Performances of PID and different fuzzy methods for controlling a ball on beam

Vu, Trieu Minh; Tamre, Mart; Moezzi, Reza; Mets, Oliver; Jürise, Mart; Pölder, Ahti; Teder, Leo; Juurma, Märt Open engineering 2016 / p. 145-151 : ill <https://doi.org/10.1515/eng-2016-0018> Journal metrics at Scopus Article at Scopus

Photogrammetry of Apollo 11 surface imagery

Pustönski, Vladislav-Veniamin; Jones, Eric M. Journal of the British Interplanetary Society 2014 / p. 390-398 : ill <https://bis-space.com/shop/product/photogrammetry-of-apollo-11-surface-imagery/> Journal metrics at Scopus Article at Scopus

Producing pyrite based solar panels for the future lunar habitat

Kristmann, Katriin; Raadik, Taavi; Heemskerk, Marc Vincent; Woods, Arthur; Vogel, Andreas; Collins, Patrick; Gasperovics, Dimitrijis; Makaya, Advenit IAF Space Power Symposium : held at the 75th International Astronautical Congress (IAC 2024) : Milan, Italy, 14-18 October 2024 2024 / p. 312 - 317 <https://doi.org/10.52202/078370-0035> Conference proceedings at Scopus Article at Scopus

Pyrite as promising monograin layer solar cell absorber material for in-situ solar cell fabrication on the Moon

Kristmann, Katriin; Raadik, Taavi; Altosaar, Mare; Grossberg-Kuusk, Maarja; Krustok, Jüri; Pilvet, Maris; Mikli, Valdek; Kauk-Kuusik, Marit; Makaya, Advenit Acta Astronautica 2022 / P. 420-424 <https://doi.org/10.1016/j.actaastro.2022.07.043> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Pyrite as prospective monograin layer solar cell absorber material for in-situ solar cell fabrication on the Moon

Kristmann, Katriin; Raadik, Taavi; Altosaar, Mare; Grossberg, Maarja; Krustok, Jüri; Pilvet, Maris; Mikli, Valdek; Kauk-Kuusik, Marit IAC 2021 congress proceedings 2021 / p. 1-6 : ill <https://deepzone3.ttu.ee/~juri.krustok/PDF-s/IAC-21.C3.4.7.x64087.pdf> Conference Proceedings at Scopus Article at Scopus

Pyrite based solar panel in-situ production on the Moon for space-based solar power

Raadik, Taavi; Kristmann, Katriin; Ciazela, J.; Jozefowicz, M.; Kowalinski, M.; Sniadkowski, A.; Bakala, J.; Steslicki, M.; Zalewska, N.; Pieterek, B.; Ciazela, M.; Marciniak, D. IAC 2023 congress proceedings 2023 / 9 p. : ill <https://iafastro.directory/iac/paper/id/79277/abstract-pdf/IAC-23.D3.2B.6.x79277.brief.pdf?2023-03-30.12:16:44> Conference proceedings at Scopus Article at Scopus

Pyrite FeS₂ solar cells fabrication for lunar base energy production

Kristmann, Katriin; Raadik, Taavi; Altosaar, Mare; Grossberg-Kuusk, Maarja; Krustok, Jüri; Pilvet, Maris; Mikli, Valdek; Kauk-Kuusik, Marit; Makaya, Advenit IAC 2022 congress proceedings 2022 / art. 190266 [Pyrite FeS₂ solar cells fabrication for lunar base energy production](#) Conference proceedings at Scopus Article at Scopus

Realizations in feedforward forms of nonlinear input-output equations with time-delays

Kaldmäe, Arvo; Kawano, Yu; **Kotta, Ülle** International journal of robust and nonlinear control 2020 / p. 7560-7573 <https://doi.org/10.1002/rnc.5194> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Regression models and fuzzy logic prediction of TBM penetration rate

Vu, Trieu Minh; Katušin, Dmitri; Antonov, Maksim; Veinthal, Renno Open engineering 2017 / p. 60-68 : ill <https://doi.org/10.1515/eng-2017-0012> Journal metrics at Scopus Article at Scopus

Regulatory frameworks for lunar resources exploitation and insights from deep sea mining practices

Bruseghello, Ilenia; **Carlo, Antonio;** Pessôa-Lopes, Isabel 22nd IAA Symposium on Visions and Strategies for the Future : held at the 75th International Astronautical Congress (IAC 2024) : Milan, Italy, 14-18 October 2024 2024 / p. 374-381 <https://doi.org/10.52202/078375-0046> Conference proceeding at Scopus Article at Scopus

Robust fractional order singular Kalman filter

Nosrati, Komeil; Belikov, Juri; Tepljakov, Aleksei; Petlenkov, Eduard International journal of robust and nonlinear control 2024 / p. 602-627 : ill <https://doi.org/10.1002/rnc.6990> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Safeguarding the final frontier : analyzing the legal and technical challenges to mega-constellations

Jha, Devanshu; Manti, Nebile Pelin; **Carlo, Antonio;** Zarkan, Laetitia Cesari; Breda, Paola; Jha, Antara Journal of space safety engineering 2022 / p. 636-643 <https://doi.org/10.1016/j.jsse.2022.08.006> Journal metrics at Scopus Article at Scopus Article at WOS

Securing outer space through cyber : risks and countermeasures

Carlo, Antonio; Casamassima, Francesca IAC 2021 congress proceedings 2021 / art. 64939 <https://dl.iafastro.directory/event/IAC-2021/paper/64939/> Conference Proceedings at Scopus Article at Scopus

Selective laser melted Ti6Al4V split-P TPMS lattices for bone tissue engineering

Rezapourianghahfarokhi, Mansoureh; Jasiuk, Iwona; **Saarna, Mart; Hussainova, Irina** International journal of mechanical sciences 2023 / art. 108353 <https://doi.org/10.1016/j.jimecsci.2023.108353> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Simulating a cyber-attack on the mass thruster controllers at low-speed motion

Astrov, Igor; Bauk, Sanja Promet - Traffic and Transportation 2024 / p. 1006 - 1021 <https://doi.org/10.7307/ptt.v36i6.797> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Space industry : applications and implications of digital transformation

Carlo, Antonio; Casamassima, Francesca IAC 2021 congress proceedings 2021 / art. 65506 <https://dl.iafastro.directory/event/IAC-2021/paper/65506/> [Conference Proceedings at Scopus](#) [Article at Scopus](#)

Stability analysis and energy harvesting in lumped parameter systems with internally coupled resonators

Alimohammadi, Hossein; Vassiljeva, Kristina; HosseinNia, S. Hassan; Petlenkov, Eduard JVC/Journal of Vibration and Control 2024 / 13 p. : ill <https://doi.org/10.1177/10775463241241161> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Tensile analysis and assessment of carbon and alloy steels using FE approach as an idealization of material fractures under collision and grounding

Ridwan; Prabowo, Aditya Rio; Muhayat, Nurul; **Putranto, Teguh;** Sohn, Jung Min Curved and Layered Structures 2020 / p. 188-198 <https://doi.org/10.1515/cls-2020-0016> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Towards a resilient cyber architecture for space infrastructures : mitigating the new attack vectors

Carlo, Antonio; Pelin Manti, Nebile; Breda, Paola; Rollinde de Beaumont, Maelys; Jha, Devanshu IAC 2022 congress proceedings Proceedings of the International Astronautical Congress, IAC 2023 / art. 78079 <https://dl.iafastro.directory/event/IAC-2023/paper/78079/> [Towards a resilient cyber architecture for space infrastructures: mitigating the new attack vectors](#) [Conference at Scopus](#) [Article at Scopus](#)

Understanding space vulnerabilities : developing technical and legal frameworks for AI and cybersecurity in the spatial field

Carlo, Antonio; Pelin Manti, Nebile; A.S.W.A.M., Bintang; Casamassima, Francesca; Boschetti, Nicolo; Breda, Paola; Rahloff, Tobias IAC 2022 congress proceedings 2022 / art. 70406 <https://dl.iafastro.directory/event/IAC-2022/paper/70406/> [Conference proceedings at Scopus](#) [Article at Scopus](#)

The (un)predictable challenges and opportunities in a changing world

Carlo, Antonio; Pessôa-Lopes, Isabel; Bruseghello, Ilenia IAF Businesses and Innovation Symposium held at the 75th International Astronautical Congress (IAC 2024) : Milan, Italy, 14-18 October 2024 2024 / p. 354 - 362 <https://doi.org/10.52202/078383-0026> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Workforce management in small student run satellite program

Dihuliya, Divya; Vihmand, Mart; Ehrminger, Robin 66th International Astronautical Congress 2015 (IAC 2015) : Space - The Gateway for Mankind's Future, Jerusalem, Israel, 12-16 October 2015 2015 / p. 10135-10137 <https://dl.iafastro.directory/event/IAC-2015/paper/31126/> [Conference proceedings at Scopus](#) [Article at Scopus](#)