

### **An enhanced situational awareness of a mission for an autonomous vehicle by multirate control**

**Astrov, Igor; Pedai, Andrus** Proceedings of the 5th WSEAS International Conference on Dynamical Systems and Control :

CONTROL'09 : La Laguna, Spain, July 1-3, 2009 2009 / p. 33-39

[https://www.researchgate.net/publication/228809791\\_An\\_enhanced\\_situational\\_awareness\\_of\\_a\\_mission\\_for\\_an\\_autonomous\\_underwater\\_vehicle\\_by\\_multirate\\_control](https://www.researchgate.net/publication/228809791_An_enhanced_situational_awareness_of_a_mission_for_an_autonomous_underwater_vehicle_by_multirate_control)

### **Comparison of single-rate and two-rate neural control approaches for coaxial rotor/ducted-fan UAV for situational awareness applications**

**Pedai, Andrus; Astrov, Igor; Udal, Andres** 2018 IEEE 16th International Symposium on Intelligent Systems and Informatics (SISY), 13-15 Sept. 2018 : proceedings 2018 / p. 63-68 : ill <http://dx.doi.org/10.1109/SISY.2018.8524720>

### **Control of hovering manoeuvres in unmanned helicopter for enhanced situational awareness**

**Astrov, Igor; Pedai, Andrus** Proceedings of the 2009 IEEE International Conference on Mechatronics and Automation : August 9-12, Changchun, China 2009 / p. 143-146 : ill <https://ieeexplore.ieee.org/document/5156580>

### **Decentralized partitioning and simulation of three-rate stochastic multidimensional continuous-time state-space models**

**Astrov, Igor; Em, Juri; Pedai, Andrus; Rüstern, Ennu** Proc. 4th Portuguese Conference on Automatic Control (CONTROLO'2000) 2000 / p. 226-231

### **Decentralized partitioning of centralized controller on three-rate subcontrollers for the multidimensional stochastic state-space continuous-time model of an experimental aircraft**

**Astrov, Igor; Pedai, Andrus; Rüstern, Ennu** Proc. 14th International Conf. Systems for Automation of Engineering and Research 2000 / p. 62-66

### **Demand and supply chain simulation in telecommunication industry by multi-rate expert systems**

**Pedai, Andrus; Astrov, Igor** Proceedings of World Academy of Science, Engineering and Technology 2008 / p. 268-270 : ill

### **Demand and supply chain simulation in telecommunication industry by multi-rate expert systems [Electronic resource]**

**Pedai, Andrus; Astrov, Igor** WCSET 2008 CD-ROM proceedings : 2008 World Congress on Science, Engineering and Technology (WCSET 2008, Prague, Czech Republic, July 25-27, 2008) 2008 / p. 268-270 [CD-ROM]

### **Depth controls of an autonomous underwater vehicle by neurocontrollers for enhanced situational awareness**

**Astrov, Igor; Pedai, Andrus** Proceedings of the World Academy of Science, Engineering and Technology 2009 / 55, p. 486-489

### **Depth controls of an autonomous underwater vehicle by neurocontrollers for enhanced situational awareness [Electronic resource]**

**Astrov, Igor; Pedai, Andrus** WCSET 2009 CD-ROM proceedings : International Conference on Marine and Naval Engineering ICMNE 2009. 2009 World Congress on Science, Engineering and Technology : WCSET 2009 : Oslo, Norway, July 29-31, 2009 2009 / p. 486-489 [CD-ROM]

### **Depth multirate control of an autonomous underwater vehicle for enhanced situational awareness [Electronic resource]**

**Astrov, Igor; Pedai, Andrus; Rüstern, Ennu** RoViSP'09 CD-ROM proceedings : 7th International Conference on Robotics, Vision, Signal Processing and Power Applications "Sustaining Engineers of Tomorrow" : Awana Porto Malai, Langkawi Island, Malaysia, December 19-20, 2009 2009 / [8] p. [CD-ROM]

### **Design of three-rate continuous-time subcontrollers for the multidimensional stochastic state-space model of an experimental aircraft**

**Astrov, Igor; Pedai, Andrus; Rüstern, Ennu** The 7th Biennial Conference on Electronics and Microsystem Technology "Baltic Electronics Conference" : BEC 2000 : October 8 - 11, 2000, Tallinn, Estonia : conference proceedings 2000 / p. 277-280 : ill

### **Desired trajectory generation of a quadrotor helicopter using hybrid control for enhanced situational awareness**

**Astrov, Igor; Pedai, Andrus; Rüstern, Ennu** Proceedings of the 2010 IEEE International Conference on Information and Automation : June 20-23, Harbin, China 2010 / p. 1003-1007 : ill

### **Development of artificial intelligence towards singularity**

**Pedai, Andrus; Astrov, Igor** World Academy of Science, Engineering and Technology. Knowledge and innovation engineering 2014 / p. 81

### **Enhanced situational awareness for AUV's stochastic model by multirate neural control**

**Astrov, Igor; Pedai, Andrus** SysCon 2010 Proceedings : 2010 IEEE International Systems Conference (SysCon 2010), San Diego, California, USA, April 5-8, 2010 2010 / p. 66-70 : ill

### **Enhancing situational awareness by means of hybrid adaptive neural control of vertical flight in unmanned helicopter [Electronic resource]**

**Pedai, Andrus; Astrov, Igor** ICCAS 2008 CD-ROM proceedings : International Conference on Control, Automation and Systems 2008 (ICCAS 2008, Seoul, Korea, October 14-17, 2008) 2008 / p. 329-332 [CD-ROM]

### **Enhancing situational awareness through multirate control of an autonomous underwater vehicle**

**Astrov, Igor; Pedai, Andrus; Rüstern, Ennu** Proceedings of the 2009 IEEE International Conference on Mechatronics and Automation : August 9-12, Changchun, China 2009 / p. 1184-1189 : ill <https://ieeexplore.ieee.org/document/5246459?reload=true&arnumber=5246459>

### **Enhancing situational awareness through neural regulation of take-off and landing manoeuvres in unmanned helicopter**

**Astrov, Igor; Pedai, Andrus** Recent advances in computational intelligence, man-machine systems and cybernetics : proceedings of 7th WSEAS International Conference on Computational Intelligence, Man-machine Systems and Cybernetics (CIMMACS'08) : Cairo, Egypt, December 29-31, 2008 2008 / p. 29-34

### **Flight control of a trirotor mini-UAV for enhanced situational awareness**

**Astrov, Igor; Pedai, Andrus** Proceedings of the World Academy of Science, Engineering and Technology 2010 / p. 271-277 : ill

### **Flight control of a trirotor mini-UAV for enhanced situational awareness [Electronic resource]**

**Astrov, Igor; Pedai, Andrus** ICAAE 2010 CD-ROM Proceedings : International Conference on Aeronautical and Astronautical Engineering : Amsterdam, Netherlands, September 28-29, 2010 2010 / p. 316-322 [CD-ROM]

### **Flight control of UAV with coaxial rotor and ducted fan configuration by NARMA-L2 controllers for enhanced situational awareness**

**Astrov, Igor; Pedai, Andrus; Gordon, Boris** World Academy of Science, Engineering and Technology 2012 / p. 75-81 : ill

### **Flight control of UAV with coaxial rotor and ducted fan configuration by NARMA-L2 controllers for enhanced situational awareness [Electronic resource]**

**Astrov, Igor; Pedai, Andrus; Gordon, Boris** ICCEA 2012 CD-ROM Proceedings : [International Conference on Computer Engineering and Applications (ICCEA 2012) : Copenhagen, Denmark, June 11-12, 2012] 2012 / p. 75-81 : ill [CD-ROM]

### **Flight trajectory control of an eight-rotor UAV for enhanced situational awareness**

**Astrov, Igor; Pedai, Andrus** Recent Researches in System Science : proceedings of the 15th WSEAS International Conference on Systems (part of the 15th WSEAS CISC Multiconference) : Corfu Island, Greece, July 14-16, 2011 2011 / p. 77-82

### **Fuzzy logic control of three-rate decentralized optimal control submodels of the Lockheed L1011 Tristar aircraft**

**Astrov, Igor; Pedai, Andrus** Proceedings of the 5th IEEE International Conference on Intelligent Engineering Systems : Helsinki, 2001 2001 / p. 41-46

### **Modelling and simulation of autonomous vehicles and systems and their advanced control methods = Autonomsete sõidukite ja süsteemide ning nende täiustatud juhtimismetoodikate modelleerimine ja simuleerimine**

**Pedai, Andrus** 2021 [https://www.ester.ee/record=b5391357\\*est](https://www.ester.ee/record=b5391357*est) <https://digikogu.taltech.ee/et/Item/654ccb12-0d81-4ae2-ae07-11248063913c> <https://doi.org/10.23658/taltech.9/2021>

### **Motion control of UAV having eight rotors for enhanced situational awareness**

**Astrov, Igor; Pedai, Andrus** World Academy of Science, Engineering and Technology 2011 / p. 694-701 : ill <https://zenodo.org/records/1070115>

### **Motion control of X4-flyer for enhanced situational awareness**

**Astrov, Igor; Pedai, Andrus** Latest trends on systems : 14th WSEAS International Conference on Systems : Greece, July 22-24. Vol. 1 2010 / p. 123-128: ill

### **Multirate depth control of an AUV by neural network predictive controller for enhanced situational awareness [Electronic resource]**

**Astrov, Igor; Pedai, Andrus** 5th International Symposium on Computational Intelligence and Intelligent Informatics (ISCII 2011) : Floriana, Malta, September 15-17, 2011 : proceedings 2011 / p. 47-52 [CD-ROM]

### **Multirate depth control of an AUV by neurocontroller for enhanced situational awareness**

**Astrov, Igor; Pedai, Andrus** Advances in Computational Intelligence, Man-Machine Systems and Cybernetics 2010 / p. 21-26 : ill

### **Multi-rate expert systems in supply chain simulation for telecommunication industry [Electronic resource]**

**Pedai, Andrus; Astrov, Igor** WiCOM 2008 CD-ROM proceedings : 4th International Conference on Wireless Communications, Networking and Mobile Computing (WiCOM 2008) : Dalian, China, October 12-17, 2008 2008 / [4] p. : ill. [CD-ROM]

### **Multirate neural control for AUV's increased situational awareness during diving tasks using stochastic model**

**Astrov, Igor; Pedai, Andrus** Proceedings of the World Academy of Science, Engineering and Technology 2010 / p. 337-343 : ill

### **Multirate neural control for AUV's increased situational awareness during diving tasks using stochastic model [Electronic resource]**

**Astrov, Igor; Pedai, Andrus** ICMISE 2010 CD-ROM proceedings : International Conference on Machine Intelligence and Systems

**Nanotechnology in military development**

**Pedai, Andrus; Astrov, Igor** World Academy of Science, Engineering and Technology. International journal of chemical, nuclear, materials and metallurgical engineering 2014 / p. 1121-1125 : ill

**Proactive approach to innovation management**

**Pedai, Andrus; Astrov, Igor** World Academy of Science, Engineering and Technology. International journal of social, education, economics and management engineering 2014 / p. 2241-2245 : ill

**Simulation of three-rate neural and neuro-fuzzy hybrid control for the multidimensional stochastic model of a fighter aircraft**

**Astrov, Igor; Pedai, Andrus; Rüstern, Ennu** SCI 2004 : the 8th World Multi-Conference on Systemics, Cybernetics and Informatics : July 18-21, 2004, Orlando, Florida, USA. Vol. 8 : proceedings 2004 / p. 351-356

**Simulation of two-rate adaptive hybrid control with neural and neuro-fuzzy networks for stochastic model of an experimental aircraft**

**Astrov, Igor; Pedai, Andrus; Rüstern, Ennu** Proceedings of the International Conference on Cybernetics and Information Technologies, Systems and Applications (CITSA 2004) [and] 10th International Conference on Information System Analysis and Synthesis (ISAS 2004) : Orlando, Florida, USA. Vol. 2 2004 / p. 295-300

**Simulation of two-rate adaptive hybrid control with neural and neuro-fuzzy networks for stochastic model of missile autopilot**

**Astrov, Igor; Pedai, Andrus; Rüstern, Ennu** WCICA 2004 : Fifth World Congress on Intelligent Control and Automation : June 15-19, 2004, Hangzhou, China : conference proceedings. Vol. 3 2004 / p. 2603-2607 : ill

**Simulation of two-rate adaptive neural network and fuzzy logic hybrid control for stochastic model of an experimental aircraft**

**Astrov, Igor; Pedai, Andrus; Rüstern, Ennu** Canadian Conference on Electrical and Computer Engineering 2004 = Conference canadienne en genie electrique et informatique : May 2-5, 2004, Fallsview Sheraton, Niagara Falls, Canada : proceedings. Vol. 1 2004 / p. 125-128 : ill

**Simulink/MATLAB based comparison of neural and basic tracking control for an autonomous surface vessel for situation awareness applications**

**Astrov, Igor; Udal, Andres; Pedai, Andrus; Sell, Raivo** 2019 IEEE 19th International Symposium on Computational Intelligence and Informatics and 7th IEEE International Conference on Recent Achievements in Mechatronics, Automation, Computer Sciences and Robotics (CINT-MACRo) 2019 / p. 000105 - 000110 : ill

**Single-Rate versus Three-Rate Neural Assisted Control Approaches for Coaxial Rotor Ducted Fan UAV for Situation Awareness Applications**

**Pedai, Andrus; Astrov, Igor; Udal, Andres; Sell, Raivo** 2019 IEEE International Systems Conference (SysCon 2019), Orlando, FL, USA, April 8-11, 2019 2019 / p. 457-463 : ill <https://doi.org/10.1109/SYSCON.2019.8836871>

**Situational awareness based flight control of a drone [Electronic resource]**

**Astrov, Igor; Pedai, Andrus** 2011 IEEE International Systems Conference (SysCon 2011) : Montreal, Quebec, Canada, April 4-7, 2011 : proceedings 2011 / p. 574-578 [CD-ROM]

**Situational awareness based flight control of a four-rotor type UAV**

**Astrov, Igor; Pedai, Andrus** Recent Researches in Automatic Control : 13th WSEAS International Conference on Automatic Control, Modelling and Simulation (ACMOS'11) : Lanzarote, Canary Islands, Spain, May 27-29, 2011 2011 / p. 63-68

**Situational awareness based flight control of a three-rotor mini-aircraft**

**Astrov, Igor; Pedai, Andrus** New aspects of automatic control, modelling and simulation 2010 / p. 71-76

**Situational awareness based on neural control of an autonomous helicopter during hovering manoeuvres**

**Astrov, Igor; Pedai, Andrus** Proceedings of 5th International Conference on Electrical and Computer Engineering (ICECE 2008) : Dhaka, Bangladesh, December 20-22, 2008 2008 / p. 857-860

**Three-rate neural control of UAV with coaxial rotor and ducted fan configuration for enhanced situational awareness**

**Astrov, Igor; Pedai, Andrus** 2012 International Conference on Control, Automation and Information Sciences (ICCAIS) : [Ho Chi Minh City, Vietnam, November 26-29, 2012 : proceedings] 2012 / p. 78-83 : ill <https://ieeexplore.ieee.org/document/6466634>

**Two-rate neural control of UAV with coaxial rotor and ducted fan configuration for enhanced situational awareness**

**Astrov, Igor; Pedai, Andrus; Gordon, Boris** Proceedings of 9th International Conference 2012 ELEKTRO : May 21 - 22, 2012, Žilina-Rajecké Teplice, Slovakia 2012 / p. 159-164 : ill <https://ieeexplore.ieee.org/document/6225630>

