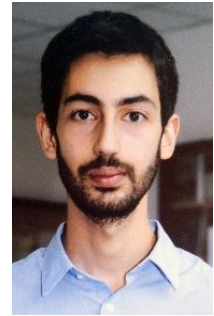


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Education

University of Thessaly, Polytechnic School, Department of Mechanical Engineering

2017- Today PhD in Mechanical Engineering and Material Science
Division of Mechanics, Materials and Manufacturing Processes, Laboratory of Materials

Dissertation: “On the computational design of medium-Mn steels”

Committee: Prof. G.N. Haidemenopoulos (Advisor), Prof. N. Aravas, Prof. A. Alexandridis

2012-2017 Diploma in Mechanical Engineering (integrated BSc & MSc)
Division of Mechanics, Materials and Manufacturing Processes, Laboratory of Materials

Grade: 8.48/10 (Second in class)

Dissertation: “Alloy design of medium-Mn steels based on computational thermodynamics and multi-objective optimization” (Grade: 10/10)

Committee: Prof. G.N. Haidemenopoulos (Advisor), Prof. N. Aravas, Prof. A. Alexandridis

Research / Working Experience

10/2017- Today University of Thessaly, Volos, Greece
RFCS LightChassis Project for the Development of affordable integrated lightweight chassis components from flexible 3G medium-Mn steels.

Position: Composition and heat treatment design of novel medium-Mn steels, aiming to enhance formability in light weight chassis components.

Funded by the EU and in collaboration with industrial partners (RWTH, Salzgitter Mannesmann Forschung, Gestamp Autotech Engineering, Centro Ricerche Fiat SCPA, Instituto De Soldadura e Qualidade).

02/2018- Today Department of Mechanical Engineering, University of Thessaly

- Teaching Assistance (lectures, lab demonstrations and tutoring), “Physical Metallurgy” (undergraduate),
- Tutorials in Computational Thermodynamics and Kinetics
- Science demonstrations and guided tours of local high school students at the Laboratory of Materials. Under the “Open Gates” project, to inspire high school students to pursuit university education.

04.2017- 11.2017 Simulation Advisor to the synthetic biology research team iGEM-Greece pANDORRA
DOI: [10.13140/RG.2.2.22325.99040](https://doi.org/10.13140/RG.2.2.22325.99040)
<http://2017.igem.org/Team:Greece>

- 09.2016-
05.2017 Department of Mechanical Engineering, University of Thessaly
Design of high extrudability 6063 Al alloys, in collaboration with the Aluminium of Greece (AoG), of Mytilineos Industries
- 07/2016–
08/2016 Internship at SKLERO S.A., 57022 Sindos Industrial Area, Thessaloniki, Greece
Machining and industrial heat treatment of ferrous alloys.
- 09.2015-
07.2016 Department of Mechanical Engineering, University of Thessaly
Design of high extrudability 6060 Al alloys, in collaboration with the Aluminium of Greece (AoG), of Mytilineos Industries
- 03.2015-
06.2017 Department of Mechanical Engineering, University of Thessaly
Diploma Thesis and published articles regarding the design of medium-Mn steels, in the context of the IKYDA project: Design of 3rd generation advanced high-strength steels.

Publications

Refereed Papers

- 2019 P. I. Sarafoglou, A. Serafeim, I. A. Fanikos, J. S. Aristeidakis, G. N. Haidemenopoulos, “Modeling of Microsegregation and Homogenization of 6xxx Al-Alloys Including Precipitation and Strengthening During Homogenization Cooling”. *Materials*, 2019, 12(9), Special Issue: [Light Metal Based Alloys: Fundamentals and Applications](#). doi:[10.3390/ma12091421](#)
- 2017 J.S. Aristeidakis, G.N. Haidemenopoulos, “Alloy design based on computational thermodynamics and multi-objective optimization: the case of medium-Mn steels”, *Metall. Mater. Trans. A*, 2017, 48: 2584. doi:[10.1007/s11661-017-4010-4](#)
- 2016 P.I. Sarafoglou, J.S. Aristeidakis, M.I.T. Tzini, G.N. Haidemenopoulos, “Metallographic Index-Based Quantification of the Homogenization State in Extrudable Aluminum Alloys”, *Metals*, MDPI, 2016, 6, 121, Special Issue: Aluminum Alloys, doi:[10.3390/met6050121](#)

Conference Papers

- 2019 J.S. Aristeidakis, G.N. Haidemenopoulos, ”Simulation and genetic optimization as tools for the development of medium-Mn steels”, Conference Proceedings: 7th Pan-Hellenic Conference of Metallic Materials, 2019, in press.
- P.I. Sarafoglou, A. Serafeim, I.A. Fanikos, J.S. Aristeidakis, G.N. Haidemenopoulos, ”Modeling the homogenization process of Al-Mg-Si (6xxx) aluminum alloys”, Conference Proceedings: 7th Pan-Hellenic Conference of Metallic Materials, 2019, in press.
- M. Sotiriou, M.I.T. Tzini, J.S. Aristeidakis, G.N. Haidemenopoulos, I. Barsoum, “A computational study of solidification mode and evolution of microsegregation during additive manufacturing of austenitic stainless steel”, Conference Proceedings: 7th Pan-Hellenic Conference of Metallic Materials, 2019, in press.
- J.S. Aristeidakis, G.N. Haidemenopoulos, "Alloy design of medium-Mn steels using genetic programming", Conference Proceedings: 4th International Conference on Medium and High Manganese Steel HMnS2019, pg. 192-195, 2019. Available at [ResearchGate](#)
- 2016 J.S. Aristeidakis, G.N. Haidemenopoulos, “Alloy design for austenite stabilization in medium-Mn steels”, Conference Proceedings: 6th Pan-Hellenic Conference of Metallic Materials, pg. 39-45, 2016

P.I. Sarafoglou, J.S.Aristeidakis, M.I.T. Tzini, G.N. Haidemenopoulos, “Quantification of the homogenization state in extrudable aluminum alloys”, Conference Proceedings: 6th Pan-Hellenic Conference of Metallic Materials, pg.33-38, 2016

Other Publications

2017 Advances in Engineering: Alloy Design of MMnS. (2017). *Advances in Engineering*.
<https://advanceseng.com/materials-engineering/alloy-design-computational-thermodynamics-multi-objective-optimization-medium-mn-steels/>

Working Papers

J.S. Aristeidakis, G.N. Haidemenopoulos, ”Simulation and evolutionary optimization as tools for the development of medium-Mn steels”

M. Sotiriou, M.I.T. Tzini, J.S. Aristeidakis, G.N. Haidemenopoulos, I. Barsoum , “A computational study of solidification mode and evolution of microsegregation during additive manufacturing of austenitic stainless steel”

G. Aktaş Çelik, M.I.T. Tzini, Ş.Polat, J.S. Aristeidakis, Ş.Hakan, Atapek, P.I. Sarafoglou, G.N. Haidemenopoulos,” Simulation and analysis of the solidification characteristics of a Si-Mo ductile iron”

Honors & Awards

2017 Advances in Engineering, Key Scientific Article Certificate for: J.S.Aristeidakis, G.N.Haidemenopoulos, “Alloy design based on computational thermodynamics and multi-objective optimization: the case of medium-Mn steels”, *Metall. Mater. Trans. A*, 48(5), 2584-2602, 2017

2011 Most Interesting Paper Award: J.S. Aristeidakis, G. Assioglou, L. Tzimkas (advisor), “Novel algorithm for password generation and effective user authentication in computer systems”, 1st Anatolia College Science & Technology Annual Conference ACSTAC 2011 (High school Conference), 2011, at Anatolia High School, Thessaloniki, Greece.
<http://web.acstac.gr/index.php/archives/acstac-2011>

Most Innovating Paper Award: G. Assioglou, J.S. Aristeidakis, L. Tzimkas (advisor), “Simulation and customization of a computer network using Cisco Packet Tracer software”, 1st Anatolia College Science & Technology Annual Conference ACSTAC 2011 (High school Conference), 2011, at Anatolia High School, Thessaloniki, Greece.
<http://web.acstac.gr/index.php/archives/acstac-2011>

Conference Presentations

2020 TMS Annual Meeting 2020, February 2020, At San Diego, California, USA.
Accepted Abstract: “End to end simulation and genetic optimization for the design of Medium Mn Steels”, J.S. Aristeidakis and G.N. Haidemenopoulos

2019 7th Pan-Hellenic Conference of Metallic Materials, December 2019, At Athens, Greece.
Accepted Abstract: ”Simulation and genetic optimization as tools for the development of medium-Mn steels”, J.S. Aristeidakis, G.N. Haidemenopoulos

7th Pan-Hellenic Conference of Metallic Materials, December 2019, At Athens, Greece.
Accepted Abstract: ” Modeling the homogenization process of Al-Mg-Si (6xxx) aluminum alloys”, P.I. Sarafoglou, A. Serafeim, I.A. Fanikos, J.S. Aristeidakis, G.N. Haidemenopoulos

7th Pan-Hellenic Conference of Metallic Materials, December 2019, At Athens, Greece.
Accepted Abstract: “A computational study of solidification mode and evolution of microsegregation during additive manufacturing of austenitic stainless steel”, M. Sotiriou, M.I.T. Tzini, J.S. Aristeidakis, G.N. Haidemenopoulos, I. Barsoum

4th International Conference on Medium and High Manganese Steel HMnS2019, April 2019, At Aachen, Germany.

"Alloy design of medium-Mn steels using genetic programming",
J.S. Aristeidakis, G.N. Haidemenopoulos

2nd Annual Gulf Steel Conference and Exhibition for the Oil and Gas Industry (Gulf Steel Show), March 2019, at Abu Dhabi, United Arab Emirates.

"Alloy design of medium Mn steels based on computational thermodynamics, kinetics and multi-objective optimization”, J.S. Aristeidakis, G.N. Haidemenopoulos

2018 MSE Congress Materials Science and Engineering-MSE 2018, September 2018, At Darmstadt, Germany.

Highlight Lecture: “Alloy design of medium Mn steels based on computational thermodynamics, kinetics and multi-objective optimization”, J.S. Aristeidakis, G.N. Haidemenopoulos

MSE Congress Materials Science and Engineering-MSE 2018, September 2018, At Darmstadt, Germany.

"Simulation of the intercritical annealing of Dual-Phase steels", H. Kamoutsi, J.S. Aristeidakis, G.N. Haidemenopoulos

2017 Euromat 2017 European Congress and Exhibition on Advanced Materials and Processes, September 2017, At Thessaloniki, Greece.

“Alloy design of medium-Mn steels based on computational thermodynamics and multi-objective optimization“, J.S. Aristeidakis, G.N. Haidemenopoulos

2016 6th Pan-Hellenic Conference of Metallic Materials, December 2016, At Ioannina, Greece.
“Alloy design for austenite stabilization in medium-Mn steels”, J.S. Aristeidakis, G.N. Haidemenopoulos

6th Pan-Hellenic Conference of Metallic Materials, December 2016, At Ioannina, Greece.
“Quantification of the homogenization state in extrudable aluminum alloys”, P.I. Sarafoglou, I. Aristeidakis, M.I.T. Tzini, G.N. Haidemenopoulos

High School Conferences

2011 1st Anatolia College Science & Technology Annual Conference ACSTAC 2011 (High school Conference), 2011, at Anatolia High School, Thessaloniki, Greece.

“An algorithm for password generation and effective user authentication in computer systems”,

Original Title: “Κατασκευή πρότυπου αλγορίθμου παραγωγής συνθηματικών για την αποτελεσματικότερη αυθεντικοποίηση σε πληροφοριακά συστήματα”, J.S. Aristeidakis, G. Assioglou, L. Tzimkas (advisor), [Proceedings](#), pg.70-78

1st Anatolia College Science & Technology Annual Conference ACSTAC 2011 (High school Conference), 2011, at Anatolia High School, Thessaloniki, Greece.

“Simulation and customization of a computer network using Cisco Packet Tracer software”,
Original Title: “ Προσομοίωση και παραμετροποίηση δικτύου Η/Υ με τη χρήση λογισμικού για την εύρεση σεναρίων βέλτιστης απόκρισης δικτύου”, G. Assioglou, J.S. Aristeidakis, L. Tzimkas (advisor), [Proceedings](#), pg.54-61

Tutorials

2017 FEMS 30th Anniversary Education Tutorial with Granta, September 17th Euromat 2017, Thessaloniki, Greece

Member

Hellenic Metallurgical Society (HMS)

Volunteering

2017 Volunteer at the Euromat 2017 European Congress and Exhibition on Advanced Materials and Processes, September 2017, At Thessaloniki, Greece

Decoration and renovation of campus buildings in the Polytechnic School of the University of Thessaly, in collaboration with the “Green UTH” team.