

**List of scientific works affiliated to  
„Aurel Vlaicu” University Arad  
As. Dr. Ing. Elena Stela Muncuț**

**A. The doctoral thesis**

Contributions to MIG / MAG-CMT weld brazing process of dissimilar joints optimization of thin sheets, Politehnica University Timișoara  
Scientific advisor: Prof. Dr. ing. Dorin Dehelean – supported in 29.01.2013 at Politehnica University Timișoara

**B. Books and chapters in books**

1. F. Tusz, E. Muncuț, G. Meszar **Proiectarea și încercarea structurilor sudate**, 60 pagini, Ed. Universității Aurel Vlaicu, 2005, ISBN 973-752-010-6,
2. Gh. Sima, E. Muncuț, F. Tusz, **Procese de asamblare prin sudare**, Îndrumător pentru lucrări de laborator pentru specialitatea TCM; AR, 85 pagini, Ed. Universității Aurel Vlaicu, 2008.
3. E. Muncuț, Gh. Sima, D. Mortoiu, **Sisteme de fabricatie flexibile-Roboți industriali**, 141 pagini, Ed. Universității Aurel Vlaicu, 2013, ISBN 978-973-752-670-0.
4. E. Muncuț, **Optimizarea procesului de sudobrazare MIG/MAG-CMT a îmbinărilor disimilare din table subțiri**, 130 pagini, Ed. Politehnica, 2013, ISBN 978-606-554-587-8, ISSN 1842-8967.

**C. ISI/BDI indexed works**

**Journals**

**ISI**

[1] E. Muncuț, R. Lile, Gh. Sima, D. Glăvan, **Optimising joint technology of thin sheet of different composition and its quality management**, Pensee Journal, Vol. 76, No. 5, May 2014, pp. 312-321.  
<http://www.penseejournal.com/auto/index.php/pdf/stream/oAIntLD/1398792977>

[2] E. Muncuț, Gh. Sima, D. Glăvan, I. Radu, **Linear dependence between energy at weld brazing and thickness of interlayer made of intermetallic compounds for a buffer of 20mm and 40mm nickel**, Pensee Journal, Vol. 76, No. 4, Apr 2014, pp. 338-343.  
<http://www.penseejournal.com/auto/index.php/pdf/stream/hbzYs7z/1395303935>

[3] Gh., Sima, E. Muncuț, **Thermal field modeling in the MIG / MAG - CMT braze-welding process of galvanized sheets**, International Journal of Engineering Science and Technology (IJEST), vol. 5, no. 10, Oct. 2013, ISSN : 0975-5462, pp. 1799-1807.  
<http://www.ijest.info/current-issue.php>

[4] E. Muncuț, R. A. Roșu, **MIG / MAG - CMT weld brazing modelling process of galvanized sheets**, Metalurgia Internațional, vol. XVII, no. 10/2012, pag. 54-59, ISSN 1582-2214.  
[http://isiwebofknowledge.com/products\\_tools/multidisciplinary/webofscience/contentexp/eu/](http://isiwebofknowledge.com/products_tools/multidisciplinary/webofscience/contentexp/eu/)

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[5] Doina Mortoiu, Lucian Gal, Elena Stela Muncuț, Odeta Belei, **Study of optimum parameters of thermal plasma cutting**, Nonconventional Technologies Review, „Politehnica” Publishing House

volume XVIII no. 2/2014 **Print:** ISSN 2359 – 8646; ISSN-L 2359 – 8646; **On-line:** ISSN 2359 – 8654; ISSN-L 2359 – 8646, pag.27-33.

<http://www.revtn.ro/no2-2014.html>

<http://journals.indexcopernicus.com/karta.php?action=masterlist&id=4979>

[6] Muncut Elena Stela, Culda Lavinia Ioana, Sima Gheorghe, Mortoiu Doina, **The study of increased height at MIG-CMT continuous or pulse combined braze-welding of the thin sheets of galvanized steel and aluminum**, Nonconventional Technologies Review, „Politehnica” Publishing House volume XVII no. 2/2013 ISSN: 1454-3087, pag.46-50.

[7] E. Muncuț, **Influence of temperature on the thermoemissivity coefficient in the aluminum/copper brazing**, Sudura XXI, nr.3, 2011, ISSN 1453-0384, pag. 27-30.

[http://www.csa.com/factsheets/supplements/weld\\_asrc.php](http://www.csa.com/factsheets/supplements/weld_asrc.php)

[8] E. Muncuț, D. Dehelean, R. Roșu, **Optimization of MAG – CMT weld – brazing process of zinc-coated plates Sudura XXI, nr. 1, 2011**, Timișoara, ISSN 1453-0384, pag. 41-44.

[http://www.csa.com/factsheets/supplements/weld\\_asrc.php](http://www.csa.com/factsheets/supplements/weld_asrc.php)

[9] E. Muncuț, G. Sima, G. Meszar, **Aplicarea sudării în tandem utilizând regimuri Master Slave**, Sudura an XIV, nr.2, 2004, Timișoara, ISSN 1453-0384, 29-31.

[http://www.csa.com/factsheets/supplements/weld\\_asrc.php](http://www.csa.com/factsheets/supplements/weld_asrc.php)

## Conferences

ISI

[10] Sima Gheorghe, Dan Glavan, Alexandru Popa, Elena Muncut, Hard as a rock or deformation controlled. Proceedings of the 6th International Workshop on Soft Computing Applications SOFA 2014, Volume 2, Series: Advances in Intelligent Systems and Computing, Vol. 356, Editors: Valentina E. Balas, Lakhmi C. Jain, Branko Kovačević, Springer Verlag, 2015, ISBN 978-3-319-18295-7 (ARC Cat. C, SCOPUS, ISI Proceedings),

<http://www.springer.com/engineering/computational+intelligence+and+complexity/book/978-3-319-18295-7>

[11] Gheorghe Sima, Ramona Lile, Glavan Dan and Elena Muncut, Management, Traceability and Control of Industrial Processes, Proceedings of the 6th International Workshop on Soft Computing Applications SOFA 2014, Volume 1, Series: Advances in Intelligent Systems and Computing, Vol. 357, Editors: Valentina E. Balas, Lakhmi C. Jain, Branko Kovačević, Springer Verlag, 2015, ISBN 978-3-319-18415-9 (ARC Cat. C, SCOPUS, ISI Proceedings),

<http://www.springer.com/engineering/computational+intelligence+and+complexity/book/978-3-319-18415-9>

[12] R. A. Roșu, D. R. Pascu, E. Muncuț & Toma Cristian, **Structural and mechanical characterization of aluminum alloy-galvanized steel joints realized by CMT process**, ModTech International Conference - New face of TMCR, *Modern Technologies, Quality and Innovation - New face of TMCR*, 25-27 May 2011, Vadul lui Voda-Chisinau, Republic of Moldova, pag 929-932 ISSN 2067-3604.

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Annals

Oradea <http://stiinte.uoradea.ro/en/auofm.htm>

[13] Elena Stela Muncuț, Lavinia Ioana Culda, Gheorghe Sima, Doina Mortoiu, **The CMT braze-welded diffusion layer study on galvanized aluminium sheets**, ANNALS of the Oradea University, Fascicle of Mechanical and Technological Engineering, **2013**, ISSN 1583-0691.  
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[14] Lavinia Ioana Culda, Elena Stela Muncuț, Gheorghe Sima, Doina Mortoiu, **CAD/CAM Modeling and simulation, with the CATIA**, ANNALS of the Oradea University, Fascicle of Mechanical and Technological Engineering, **2013**, ISSN 1583-0691.  
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[15] E. Muncuț, Ghe. Sima, **The study of increased height at MIG - CMT continuous or pulse combined braze-welding of the thin sheets of galvanized steel and aluminum**, MECHANICAL ENGINEERING IN XXI CENTURY” The 2<sup>nd</sup> International Conference, June 20th, 2013, Nis, Serbia

[16] E. Muncuț, Ghe. Sima, Ghe. Huțiu **Methods of choose the way for transfer welding tandem**, ANNALS of the Oradea University, Fascicle of Management and Technological Engineering, Volume VII (XVII), **2008**, ISSN 1583-0691 pag 2851-2857  
<http://imtuoradea.ro/auo.fmte/2008.index.pdf>

[17] E. Muncuț, Ghe. Sima, D. Mortoiu **Mathematical model of the termic field at welding with big productivity**, ANNALS of the Oradea University, Fascicle of Management and Technological Engineering, Volume VII (XVII), **2008** ISSN 1583-0691 pag 2858- 2866  
<http://imtuoradea.ro/auo.fmte/2008.index.pdf>

#### D. Articles published in journals and conference reviewer volumes ( not indexed)

##### Journals

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[1] G. Sima, E. Muncuț, G. Mesar, **The necessity of sensor use in robot welding**, ANNALS of the Oradea University, volume III **2004**, ISSN 1583-0691

##### Conferința Internațională ASR „Sudura 2009”

[2] E. Muncuț, D. Dehelean, S. Dragoi, L. Draguț, **Sudobrazarea MIG/MAG CMT a tablelor subtiri din otel zincat**, CONFERINȚA INTERNAȚIONALĂ ASR „SUDURA 2009” Tehnologii de sudare și recondiționare prin sudare, secțiune Îmbinarea materialelor avansate, Drobeta Turnu Severin ISSN 1843-4738, **2009**, pag 122

##### Analele Univ. “Aurel Vlaicu” Arad

[3] E. Muncuț, D. Mortoiu, Gh. Sima, **Sudobrazarea MIG-CMT pentru îmbinarea eterogenă a tablelor zincate subțiri cu aluminiu**, *Analele Univ. “Aurel Vlaicu” Arad*, **2012**, ISBN 1582-3431.

[4] Gabriela MESZAR; Francisc TUSZ; Elena Stela MUNCUȚ, **Experimental determination of the bending of thin plate in free state caused by the application of welding rows** *Analele Univ. “Aurel Vlaicu” Arad*, **2010**, ISBN 1582-3431.

[5] G. Mesar, E. Muncuț, Gh. Sima, **Elaborarea tehnologiei de remaniere a fisurii la manerul elastic de la vagonul platforma**, *Analele Univ. “Aurel Vlaicu” Arad*, **2006**, ISBN 1582-3431,

[6] E. Muncuț, G. Meszar, Gh. Sima, **Modelul matematic al campului termic la sudarea cu mare productivitate**, "Aurel Vlaicu" Arad, 2006, ISBN 1582-3431.

[7] E. Muncuț, Gh. Sima, F. Tusz, G. Meszar, **Deformații comparative la sudarea în tandem și monofilar**, *Analele Univ. "Aurel Vlaicu" Arad*, 2004, ISBN 1582-3431, 508-515.

### ***Scientific and Technical Bulletin***

[8] F. Tusz, G. Meszar, E. Muncuț, **The automatic tracking of objects in the tridimensional space** *Scientific and Technical Bulletin, Series: Mechanical Engineering, Vol I. No. 1, 2005*, "Aurel Vlaicu" Univ. of Arad, ISSN 1584-918X, 24-31;

[9] G. Meszar, F. Tusz, E. Muncuț, G. Sima, **A Synthesis of the methods of Straithening the thin plates in the railwaz wagons buliding**. The Principle of the aparition of the bendings, *Scientific and Technical Bulletin, Series: Mechanical Engineering, Vol I. No. 1, 2005*, "Aurel Vlaicu" Univ. of Arad, ISSN 1584-918X, 50-54;

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[11] G. Sima, G. Meszar, E. Muncuț, **Using magnetic control in fielding flaw in order to prevent the deterioration of the environment**, *Scientific and Technical Bulletin, Series: Mechanical Engineering, Vol I. No. 3, 2005*, "Aurel Vlaicu" Univ. of Arad, ISSN 1584-918X, 51-56.

### **E. Research contracts**

**Electric arch weldbrazing in protective gas environment ISIM Timisoara**, Period **01.03.2009 – 15.11.2010**, PN **09-160103**, project director: ing. Draguț Lucian, Colective participation ing. Muncuț Elena Stela

**Study on welding technologies needed to design and repair of welded assemblies**, recipient CET Arad SA, nr. 378 / 27.01.2005, respective nr.29 / 01.02.2005, Val. 20.050 thousand lei. F. TUSZ – in charge for contract - Contributors G. MESZAR, Muncuț Elena Stela

**Non exclusive assignment contract for the transfer of economic rights by author nr. 623/25.02.2015**, for 2 march – 31 mai 2015 period with CNIPMMR –Arad subsidiary(assignee) and Muncuț Elena (assignor). For non exclusive assignment of rights of the author in the field of computer aided design presented in the form of: studies, projects and scientific documentation, written and oral communications. Followed by the support of 100 hours of practical training in "computer aided design".

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Muncuț Elena Stela

