



## Europass Curriculum vitae



### Personal information

First name(s) / Surname(s) **Teodor Costinel POPESCU**

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Nationality Romanian

Date of birth May 26, 1955

Gender Male

**Desired employment / Occupational field** **PN-II-PT-PCCA-2013-4 Project Manager**

### Work experience

Dates April 24, 2017- on going

Occupation or position held SR 1 (scientific researcher 1-nd rank) / Tehnical Adviser

Main activities and responsibilities - Project manager for one phase in the Research project code PN 16 40.03.01, under the NUCLEU Programme.

Name and address of employer National Institute of Research & Development for Optoelectronics /INOE 2000-subsiary Hydraulics and Pneumatics Research Institute –IHP Bucharest / 14, Cutitul de Argint Street, district 4, Bucharest, Romania, Telephone: +40 213363991; Fax: +40 213373040; Website: <http://www.ihp.ro>

Type of business or sector Research & Development in Fluid Power systems.

Dates April 1, 1997- April 24, 2017

Occupation or position held SR 2 (scientific researcher 2-nd rank) / Tehnical Adviser (December 14, 2009- present); SR 3 / Tehnical Adviser (December 14, 2009- January 1, 2008); SR 3 / Head of R&D department (January 1, 2004- January 1, 2008); SR 3 / Research specialist (April 1, 1997- January 1, 2004).

Main activities and responsibilities

- Rehabilitation and testing works in order to restore the functional parameters of hydraulic equipments which are components of installation FAG LUKAS for lifting and re-lining derailed equipment (METROREX Bucharest);
- Research on improving technical performance of installation FAG LUKAS for lifting and re-lining derailed equipment (METROREX Bucharest), through strict control of load lifting-lowering speed;
- Drafting directions for use and maintenance of installation FAG-LUKAS for lifting and re-lining derailed equipment (METROREX Bucharest);
- Elaboration and delivery of training courses for technical staff servicing pneumatic drive installations of breweries in Baia-Mare;

Main activities and responsibilities	<ul style="list-style-type: none"> <li>- Research on the actuation of centrifugal pumps on the test stands using hydrostatic transmissions with adjustment of hydraulic power in the primary sector.</li> <li>- Project manager in 9 contracts, project executive in 3 contracts, elaborator as a specialist researcher in 11 contracts from national research programmes.</li> <li>- Verification of technical documentation for the execution of specific hydraulic installations rolling mills, at Danieli headquarters in Milan, between 15.09.2013-15.11.2013.</li> <li>- Project manager for the contract „<i>Test stand for scale models of axial hydraulic turbines</i>”, gained through participation in open auction by S.E.A.P., beneficiary ICPE-CA Bucharest.</li> <li>- Project manager for several phases in the Research project PN 09-27-04-03, under the NUCLEU Programme.</li> <li>- Delivering training classes in Fluid Power systems to Romanian engineers working in this field.</li> </ul>
Name and address of employer	National Institute of Research & Development for Optoelectronics /INOE 2000-subsiary Hydraulics and Pneumatics Research Institute –IHP Bucharest / 14, Cutitul de Argint Street, district 4, Bucharest, Romania, Telephone: +40 213363991; Fax: +40 213373040; Website: <a href="http://www.ihp.ro">http://www.ihp.ro</a>
Type of business or sector	Research & Development in Fluid Power systems.
Dates	November 1, 1995- April 1,1997
Occupation or position held	SR 3 (scientific researcher 3-nd rank)
Main activities and responsibilities	<ul style="list-style-type: none"> <li>- Design, supervision of the execution and testing of hydraulic and pneumatic components for the locomotive speed controllers;</li> <li>- Design and putting into service of the hydro pneumatic drive installation for the continuous casting line at TUROL-Oltenita;</li> <li>- Design and putting into operation of the hydraulic drive installation of the press for vulcanization of wide rubber strips at DANUBIANA SA Bucharest;</li> <li>- Studies and research on the development of pneumatic equipment specific to public passenger transport designed to provide increased traffic safety;</li> <li>- Research on techniques and means for adjusting, multiplying and maintaining constant air pressure in pneumatic systems.</li> </ul>
Name and address of employer	SC ROMFLUID SA Bucharest / 14, Cutitul de Argint Street, district 4, Bucharest, Romania.
Type of business or sector	Research- Design of Fluid Power systems.
Dates	May 15, 1983- November 1, 1995
Occupation or position held	SR 3 (June 1, 1990- December 14, 2009); TE 3 (technological engineer 3-rd rank) (May 1,1990- June 1,1990); principal design engineer (July 1, 1989- May 5,1990); principal design junior engineer (October 1,1988- July 1,1989); design junior engineer (May 15,1983- October 1,1988).
Main activities and responsibilities	<ul style="list-style-type: none"> <li>- Research, design, testing of hydraulic distribution equipment of 315 bar: hydraulic directional control valves RD (rated diameter) 6 ... RD 32 with manual, electrical, hydraulic and electro hydraulic control; seal hydraulic directional control valves RD 6, RD 10; brake valves, throttles and way throttles;</li> <li>- Research, design, testing of flow regulators for a 2 or 3 way board;</li> <li>- Research, design, testing of pressure valves RD 6...RD 32, direct control and pilot control;</li> <li>- Design and putting into operation of a test stand for adjustable throttles;</li> <li>- Design and putting into operation of a test stand for hydraulic directional control valves of 315 bar;</li> <li>- Design and putting into operation of a test stand for hydraulic valves of 315 bar;</li> <li>- Research, design, testing of emulsion hydraulic equipment for presses at CARBOCHIM Cluj-Napoca and IPA Barlad;</li> <li>- Design and putting into operation of a test stand for hoses at hydraulic pulsations;</li> <li>- Design and putting into operation of emulsion hydraulic drive equipment for presses at CARBOCHIM Cluj-Napoca and IPA Barlad;</li> <li>- Design and putting into operation of hydraulic, pneumatic and lubrication drive equipment for calendaring mixed lines;</li> <li>- Design of stands for batch tests of hydraulic equipment of 315 bar;</li> <li>- Design, supervising the execution and testing the components of a hydraulic installation driving in a horizontal plane the turret of the special product P 125;</li> <li>- Design and testing the components of a hydraulic installation driving in a horizontal plane the pipe of the special product P 125;</li> <li>- Works related to the assimilation (design, testing and approval) of 315 bar hydraulic equipment, BOSCH license - pressure valves;</li> </ul>

- Main activities and responsibilities
- Works related to the assimilation (design, testing and approval) of 315 bar hydraulic equipment, BOSCH extended license - one-way valves and unlockable check valves, pressure valves, universal cartridge type valves;
  - Works related to the assimilation (design, testing and approval) of pneumatic equipment;
  - Research, design, testing of hydraulic equipment for CNE (Nuclear Power Plants);
  - Research on improving static and dynamic performance of hydraulic cartridge type pressure valves;
  - Study upon design and development of micro pneumatic equipment and specific accessories;
  - Study on conducting refresher training for staff working in the field of fluid power (on three categories of students: engineers, foremen, workers);
  - Study and research on developing hydraulic equipment for high pressure technique;
  - Testing in-line piston hydraulic pumps, high pressure.

Name and address of employer CCSITMFS-SHP Bucharest- Center for Scientific Research and Technological Engineering in Fine Mechanics and Tools - Division of Hydraulics and Pneumatics / 14, Cutitul de Argint Street, district 4, Bucharest, Romania.

Type of business or sector Research- Design of Fluid Power systems.

Dates September 1,1978- March 15,1983

Occupation or position held Junior engineer / coordinator of execution works on construction sites

Main activities and responsibilities Coordinating execution works, according to specialized technical documentation, on construction sites of TCIF Bucharest in the counties of Ialomita, Calarasi, Ilfov agricultural sector, Giurgiu, Teleorman and Bucharest:

- construction facilities (sanitary, sewer, electrical, thermal facilities) developed at construction site enclosures and apartment blocks P+ 8 (ground floor +8 floors );
- water wells, of great depth (100 ... 120 m), made with hydraulic drilling equipment
- for drinking water sources used for: construction site enclosures, animal farms, alcohol factories;
- underground networks for distribution of drinking water from sources (deep wells) to consumers;
- undercrossing of national roads and railway, performed with semi-mechanical equipment for horizontal drilling, for water pipes with diameters of 200 ... 1200 mm, that are part of the irrigation and drainage systems;
- pressure tests for the stations of repressurizing main pipes and underground antenna on irrigation enclosures and sectors;
- observational drilling to monitor groundwater depth, in order to adjust length of operation of irrigation systems.

Name and address of employer Corporation of Civil Engineering for Land Reclamation (TCIF) Bucharest / 35-37, Oltenitei Ave., district 4, Bucharest, Romania.

Type of business or sector Execution of complex irrigation systems

## Education and training

Dates April 22, 2009-May 5, 2009

Title of qualification awarded Certificate of Graduation, Series E, No. 0165016, Ministry of Labour, Family and Equal Opportunities / Ministry of Education, Research and Youth

Principal subjects/occupational skills covered Taking part in the initiation / training / specialization programme for the occupation of TRAINER, graduated on August 5, 2009, (average grade 10)

Name and type of organisation providing education and training ROMANIAN BUSINESS SCHOOL-Bucharest Branch

Level in national or international classification Postgraduate

Dates 2001-2008: Doctoral studies

Title of qualification awarded Ph.D. Diploma in Engineering (granted with rating VERY WELL and distinction "CUM LAUDE")

Principal subjects/occupational skills covered Viscous fluid mechanics, theory of automatic hydraulic systems, experimental identification of hydraulic systems, current state of research on synthesis of fluid power systems, mathematical modeling and numerical simulation of fluid power systems.

Name and type of organisation providing education and training "Politehnica" University of Bucharest, Faculty of Energetics, Chair of Hydraulics, Hydraulic Machinery and Environmental Engineering

Level in national or international classification	Postgraduate
Dates	2002-2003: Further studies
Title of qualification awarded	Diploma of Further studies (average grade 10).
Principal subjects/occupational skills covered	Computer science in fluid power systems
Name and type of organisation providing education and training	"Politehnica" University of Bucharest, Faculty of Mechanical Engineering, Chair of Hydraulics, Hydraulic Machinery and Environmental Engineering
Level in national or international classification	Postgraduate
Dates	2002-2003
Title of qualification awarded	Autodesk Certificate of Completion
Principal subjects/occupational skills covered	2D and 3D AutoCAD
Name and type of organisation providing education and training	"Politehnica" University of Bucharest - Faculty of Energetics
Level in national or international classification	Postgraduate
Dates	1983-1989: University education
Title of qualification awarded	Graduate Diploma in Engineering (average grade 9)
Principal subjects/occupational skills covered	Mathematics, Physics, Chemistry, Engineering subjects specific to mechanics and hydraulics
Name and type of organisation providing education and training	Polytechnic Institute of Bucharest - Faculty of Mechanical Engineering
Level in national or international classification	University education
Dates	1975-1978: University education
Title of qualification awarded	Junior Engineer diploma (average grade 9)
Principal subjects/occupational skills covered	Mathematics, Physics, Chemistry, Engineering subjects specific to civil engineering facilities (electric, thermal, refrigeration, air conditioning, sanitary facilities)
Name and type of organisation providing education and training	Institute of Civil Engineering Bucharest - Faculty of Installations for Constructions
Level in national or international classification	University education
Dates	1974-1975: Compulsory military service (reduced period-9 months)
Title of qualification awarded	degree of second lieutenant on reserve / military service book
Principal subjects/occupational skills covered	Subjects specific to infantry officer instruction
Name and type of organisation providing education and training	Ministry of National Defence
Dates	1970-1974: High school education
Title of qualification awarded	High school Diploma (average grade: 9.50)
Principal subjects/occupational skills covered	Subjects specific to a theoretical high school, sciences profile
Name and type of organisation providing education and training	Theoretical High School "Nicolae Balcescu"-Oltenita
Level in national or international classification	Pre-university

## **Personal skills and competences**

Mother tongue(s) **Romanian**

Other language(s)

Self-assessment

European level (\*)

**French**

**English**

**Understanding**

**Speaking**

**Writing**

Listening

Reading

Spoken interaction

Spoken production

Written expression

C1	Proficient user	C1	Proficient user	B2	Independent user	B2	Independent user	B2	Independent user
A1	Basic user	A1	Basic user	A1	Basic user	A1	Basic user	A1	Basic user

(\*) [Common European Framework of Reference for Languages](#)

Social skills and competences

- As a specialized researcher, project manager and executive I have carried out activities in which teamwork is essential.
- Positions of Head of research Department, Technical Advisor and teaching activities carried in higher education require knowledge of communication science.

Organisational skills and competences

These skills and competencies have been acquired through activities conducted as:

- project manager in 9 contracts in the framework of national research programmes;
- project executive in 3 contracts in the framework of national research programmes;
- elaborator as a specialized researcher in 11 contracts in the framework of national research programmes;
- founding member, since 2005, of National Professional Association of Hydraulics and Pneumatics in Romania -FLUIDAS, which is a CETOP member.

Technical skills and competences

Experience in design and operation of complex fluid power systems

Computer skills and competences

Technical skills and competence in using computers were obtained through postgraduate courses carried out in the country, AMESim training courses carried out at IMAGINE, in Lyon, France, and the current activity at work.

Artistic skills and competences

Literature, Sport, Music

Other skills and competences

Pedagogical skills manifested during 15 years of university teaching; from 2001 to 2016 he collaborated with Politehnica University of Bucharest, Faculty of Energetics, Chair of Hydraulics, Hydraulic Machinery and Environmental Engineering, Laboratory of hydraulic and pneumatic drives controls (ACHP), where he taught laboratory tutorial classes in the subject Hydraulic and Pneumatic drives controls.

Driving licence

driving license, Class B

**Additional information**

References can be supplied on request.  
Further information at <http://www.ihp.ro/popescu.htm>

Annexes

List of publications; Patents; List of research grants as project coordinator; Projects for enterprises; R&D activities in enterprises.

May 22, 2017

Ph.D. Eng. Teodor Costinel POPESCU



## List of publications

### BOOKS AND CHAPTERS IN BOOKS

#### Doctoral thesis:

Teodor Costinel POPESCU, *Researches on the synthesis of fluid power systems*, "Politehnica" University of Bucharest, 162 pages, May, 2008 (title of Ph.D. was granted with the rating VERY WELL and distinction CUM LAUDE)

#### Books published by national and international publishers:

1 chapter published in Proceedings of The International Conference Engineering Innovation in Fluid Power Systems by ITC, Partea 8, POLYTEHNICA PRESS, Bucharest, 2011, ISSN 2247-9325 [http://fluidpower.ro/conferinta\\_itfps.pdf](http://fluidpower.ro/conferinta_itfps.pdf)

1.1. Teodor Costinel POPESCU, *Researches on the synthesis of fluid power systems* - PhD Thesis Summary, 41 pag.

2 chapters published in an international volume, published in January 2011, by InTech-Austria, accessible online at <http://www.intechweb.org/books/show/title/numerical-simulations-applications-examples-and-theory>, entitled „Numerical Simulations - Applications, Examples and Theory”, Lutz Angermann (Ed.), ISBN: 978-953-307-440-5:

2.1. Teodor Costinel Popescu, Daniela Vasiliu and Nicolae Vasiliu, **Chapter 19-** *Numerical Simulation - a Design Tool for Electro Hydraulic Servo Systems*, pp. 425...446, DOI: 10.5772/13332,

<http://www.intechopen.com/articles/show/title/numerical-simulation-a-design-tool-for-electro-hydraulic-servo-systems>

2.2. Teodor Costinel Popescu, Daniela Vasiliu, Nicolae Vasiliu and Constantin Calinoiu, **Chapter 20-** *Applications of the Electrohydraulic Servomechanisms in Management of Water Resources*, pp. 447...472, DOI:10.5772/12974,

<http://www.intechopen.com/articles/show/title/applications-of-the-electrohydraulic-servomechanisms-in-management-of-water-resources>

1 book published in the country: Teodor Costinel POPESCU, Gheorghe SOVAIALA, *Utilizarea eficienta a apei de irigat prin lucrari de nivelare executate cu utilaje terasiere bazate pe comanda laser si actionare electrohidraulica a organelor de lucru (Efficient use of irrigation water through leveling works performed with navy machines based on laser control and electrohydraulic operation of working bodies)*, Publishing House of AGIR, Bucharest, 2008, ISBN:978-973-720-217-8, 175 pag.

<http://www.lumeacartii.ro/carti/utilizarea-eficienta-a-apei-de-irigat-prin-lucrari-de-nivelare-executate-cu-utilaje-terasiere-bazate-pe-comanda-laser-si-actiunea/978-973-720-217.html>

#### 10+6+1=17 Papers published in ISI proceedings:

##### ISI-

[https://apps.webofknowledge.com/summary.do?product=WOS&parentProduct=WOS&search\\_mode=GeneralSearch&parentQid=&qid=1&SID=Z2SflqPGyQY4kCe3JMq&&update\\_back2search\\_link\\_param=yes&page=1](https://apps.webofknowledge.com/summary.do?product=WOS&parentProduct=WOS&search_mode=GeneralSearch&parentQid=&qid=1&SID=Z2SflqPGyQY4kCe3JMq&&update_back2search_link_param=yes&page=1)

##### page 1=10 papers

1. T.C.Popescu, C.Dumitrescu, I.Bordeasu, *Aspects Concerning the Use of Plastics in Developing Test Stands for Experimental Models of Hydraulic Turbine Blades and Rotors*, MATERIALE PLASTICE Bucharest - Romania Chem. Abs.: MPLAAM 53 (1) (1 - 184) ISSN 0025 / 5289 Vol. 53, no. 1, 2016, March, 20, 174-178 pp.  
<http://www.revmaterialeplastice.ro/pdf/POPESCU%20T%201%202016.pdf>
2. C. Cristescu, C. Dumitrescu, T.C. Popescu, P. Krevey, A. Ciocănea, *Research on the hydrostatic systems used in order to control rotational speed at the hydraulic turbines within small-scale hydropower plants*, 16th International Multidisciplinary Scientific GeoConference SGEM 2016, [www.sgem.org](http://www.sgem.org), SGEM2016 Conference Proceedings, ISBN 978-619-7105-63-6 / ISSN 1314-2704, June 28 – July 6, 2016, Book4 Vol. 1, 595-602 pp., DOI: 10.5593/SGEM2016/B41/S17.077  
<http://www.sgem.org/sgemlib/spip.php?article8064>
3. T.C. Popescu, C. Dumitrescu, C. Cristescu, A. Popescu, A. Marinescu, *Solutions for an effective integration of hydraulic servomechanisms driven by laser in the structure of automatic leveling navy machines*, 16th International Multidisciplinary Scientific GeoConference SGEM 2016, [www.sgem.org](http://www.sgem.org), SGEM2016 Conference Proceedings, ISBN 978-619-7105-63-6 / ISSN 1314-2704, June 28 – July 6, 2016, Book4 Vol. 1, 639-646 pp., DOI: 10.5593/SGEM2016/B41/S17.083,  
<http://www.sgem.org/sgemlib/spip.php?article8098>
4. T.C. Popescu, R. Radoi, M. Blejan, S. Nicolae, *Considerations on the experimental testing means of axial hydraulic turbine models*, 15th International Multidisciplinary Scientific GeoConference SGEM 2015, [www.sgem.org](http://www.sgem.org), SGEM2015 Conference Proceedings, ISBN 978-619-7105-38-4 / ISSN 1314-2704, June 18-24, 2015, Book4, 137-144 pp., DOI: 10.5593/SGEM2015/B41/S17.018,  
<http://sgem.org/sgemlib/spip.php?article6122>
5. T.C. Popescu, R. Radoi, M. Blejan, *Semi-automatic electro hydraulic actuation system for the mechanisms of a machine for washing photovoltaic solar panels*, 15th International Multidisciplinary Scientific GeoConference SGEM 2015, [www.sgem.org](http://www.sgem.org), SGEM2015 Conference Proceedings, ISBN 978-619-7105-38-4 / ISSN 1314-2704, June 18-24, 2015, Book4, 503-510 pp., DOI: 10.5593/SGEM2015/B41/S17.065, <http://www.sgem.org/sgemlib/spip.php?article6169>



6. T.C. Popescu, M. Blejan, D. Vasiliu, *Innovative solution of energy efficiency and management for the production of aluminum wires*, 14th International Multidisciplinary Scientific GeoConference SGEM 2014, [www.sgem.org](http://www.sgem.org), SGEM2014 Conference Proceedings, ISBN 978-619-7105-15-5 / ISSN 1314-2704, June 19-25, 2014, Book 4, Vol. 1, 315-322 pp. DOI: **10.5593/SGEM2014/B41/S17.041**, <http://sgem.org/sgemlib/spip.php?article4660>
7. T.C. Popescu, N. Vasiliu, D. Vasiliu, *Use of the electrohydraulic servomechanisms with laser position feedback in water resources management*, 13th SGEM GeoConference on Water Resources. Forest, Marine And Ocean Ecosystems, [www.sgem.org](http://www.sgem.org), SGEM2013 Conference Proceedings, ISBN 978-619-7105-02-5 / ISSN 1314-2704, June 16-22, 2013, 417 - 424 pp., DOI:**10.5593/SGEM2013/BC3/S12.053**, <http://sgem.org/sgemlib/spip.php?article3094>
8. D.D. Ion Guta, **T.C. Popescu**, P. Drumea, C. Chirita, *Tuning of electrohydraulic rotational speed regulators by means of real-time simulation techniques*, Proceedings of The 9-th International Industrial Simulation Conference (ISC 2011), 6-8 June 2011, Venice, Italy, ISBN: 978-90-77381-63-2, EAN: 978-90-77381-63-2, 43-48 pp., <https://www.eurosis.org/cms/?q=taxonomy/term/58#ISC>
9. T.C. Popescu, P. Drumea, D.D. Ion Guta, *Research activities regarding energetic and functional advantages of hydraulic transmissions*, 10th International Multidisciplinary Scientific GeoConference - SGEM2010, [www.sgem.org](http://www.sgem.org), SGEM 2010 Conference Proceedings / ISBN 10: 954-91818-1-2, June 20-26, 2010, Vol. 2, 323-330 pp., <http://www.sgem.org/SGEMLIB/spip.php?article721>
10. T.C. Popescu, D.D. Ion Guta, A. Marin, *Adjustment of Hydrostatic Transmissions through Virtual Instrumentation Technique*, Proceedings of The 8-th International Industrial Simulation Conference (ISC 2010), 7-9 June 2010, Budapest, Hungary, ISBN: 978 - 90-77381-5-57, 248-253 pp., <https://www.eurosis.org/cms/?q=taxonomy/term/58#ISC> <https://www.eurosis.org/cms/files/proceedings/ISC/ISC2010contents.pdf>

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[https://apps.webofknowledge.com/summary.do?product=WOS&parentProduct=WOS&search\\_mode=GeneralSearch&parentQid=&qid=1&SID=Z2SflgPGyQY4kCe3JMq&&update\\_back2search\\_link\\_param=yes&page=2](https://apps.webofknowledge.com/summary.do?product=WOS&parentProduct=WOS&search_mode=GeneralSearch&parentQid=&qid=1&SID=Z2SflgPGyQY4kCe3JMq&&update_back2search_link_param=yes&page=2)

**page 2=6 papers**

11. Ion Guta, D.D., **Popescu, T.C.**, Dumitrescu, C., *Optimization of hydrostatic transmissions by means of virtual instrumentation technique*, Advanced Topics in Optoelectronics, Microelectronics, and Nanotechnologies V, edited by Paul Schiopu, George Caruntu, Proceedings of SPIE Vol. 7821 (SPIE, Bellingham, WA 2010) 782129, 2010, ISBN: 9780819483300, DOI: **10.1117/12.881904**, <http://spie.org/Publications/Proceedings/Paper/10.1117/12.881904>
12. D.D. Ion Guta, I. Lepadatu, **T.C. Popescu**, C. Dumitrescu, *Research on The Stability of Electrohydraulic Servomechanisms developed with Electrohydraulic Amplifiers of Variable Area Gradient*, Proceedings of The fifth International Conference on Optimization of The Robots and Manipulators OPTIROB 2010, 28-30 May 2010, Calimanesti, Romania, ISBN: 978-981-08-5840-7, 141-145 pp., DOI:**10.3850/978-981-08-5840-7\_S4-5** [http://rpsonline.com.sg/proceedings/9789810858407/978-981-08-5840-7\\_S4-5.xml](http://rpsonline.com.sg/proceedings/9789810858407/978-981-08-5840-7_S4-5.xml)
13. M. Blejan, B. Lupu, I. Dutu, D. Rotaru, **T.C. Popescu**, *Electronic Oscillator for a Hydraulic Flow Divider*, Proceedings of The 32nd International Spring Seminar on Electronics Technology (ISSE 2009), 13-17 May 2009, Brno, Czech Republic, ISBN: 978-1-4244-4260-7, Poster Session (E), DOI: **10.1109/ISSE.2009.5207014**, [http://ieeexplore.ieee.org/xpl/login.jsp?tp=&number=5207014&url=http%3A%2F%2Fieeexplore.ieee.org%2Fxppls%2Fabs\\_all.jsp%3Farnumber%3D5207014](http://ieeexplore.ieee.org/xpl/login.jsp?tp=&number=5207014&url=http%3A%2F%2Fieeexplore.ieee.org%2Fxppls%2Fabs_all.jsp%3Farnumber%3D5207014)
14. T.C. Popescu, I. Dutu, C. Vasiliu, M. Mitroi, *Adjustment of conformity parameters of PID-type regulators using simulation by AMESim*, Proceedings of The 7th International Industrial Simulation Conference 2009, ISC 2009, June 1-3, 2009, Loughborough, United Kingdom, ISBN: 978-90-77381-4-89, 269-276 pp., <https://www.eurosis.org/cms/files/proceedings/ISC/ISC2009contents.pdf> [https://www.tib.eu/en/search/id/BLCP%3ACN077146038/Adjustment-of-conformity-parameters-of-PID-type/?tx\\_tibsearch\\_search%5Bsearchspace%5D=tn](https://www.tib.eu/en/search/id/BLCP%3ACN077146038/Adjustment-of-conformity-parameters-of-PID-type/?tx_tibsearch_search%5Bsearchspace%5D=tn)
15. Popescu T.C., Blejan M., Sovaiala Gh., *Experimental research upon accommodating the functional parameters of a laser controlled system designed for a grading machinery with the actual operating conditions of the grading machinery*, Proceedings of SPIE Vol. 7297 (SPIE, Bellingham, WA 2009) 72972D, 2009, ISBN: 9780819475596, DOI: **10.1117/12.823697**, <http://proceedings.spiedigitallibrary.org/proceeding.aspx?articleid=1337660>
16. T.C. Popescu, A. Drumea, I. Dutu, *Numerical simulation and experimental identification of the laser controlled modular system purposefully created for equipping the terrace leveling installations*, Proceedings of The International Spring Seminar on Electronics Technology (ISSE 2008), 7-11 May 2008, Budapest, Hungary, ISBN:978-963-06-4915-5,336...341 pp., DOI:**10.1109/ISSE.2008.5276663** [http://ieeexplore.ieee.org/xpl/login.jsp?tp=&number=5276663&url=http%3A%2F%2Fieeexplore.ieee.org%2Fxppls%2Fabs\\_all.jsp%3Farnumber%3D5276663](http://ieeexplore.ieee.org/xpl/login.jsp?tp=&number=5276663&url=http%3A%2F%2Fieeexplore.ieee.org%2Fxppls%2Fabs_all.jsp%3Farnumber%3D5276663)

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**1 paper**

17. D.D. Ion Guta, **T.C. Popescu**, P. Drumea, C. Cioranu, *Energy Conservation and Recovery by Means of Hydro Pneumatic Drive Systems*, Conference Proceedings, Volume III, 11-Th International Multidisciplinary Scientific Geoconference SGEM 2011, 19-25 June 2011, Bulgaria, ISSN 1314-2704, 39-47pp., DOI: **10.5593/SGEM2011/S18.107**, <http://www.sgem.org/sgemlib/spip.php?article347>

### 23 Papers published in journals indexed in other international databases:

#### BDI-

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2. C. Popescu, I. Niță; G. Șovăială, *Utilizarea mașinilor hidrostactice, volumice rotative în instalațiile de acționări hidraulice a echipamentelor de tăiat beton armat*, Simpozion MENER: "International conference on manufacturing systems, ICMAS 2004", University Politehnica of Bucharest, 10-11 October 2004.
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### 8 Patents:

- P.1.** IONITA Niculae, CRISTESCU Corneliu, **POPESCU Teodor Costinel**, DUMITRESCU Catalin, Patent no. 129551/28.04.2017- *Hydraulic winch*, 28.04.2017, OSIM.
- P.2.** IONITA Niculae, **POPESCU Teodor Costinel**, DUMITRESCU Catalin, Patent no. 129387/28.02.2017- *Hydraulic jacking cylinder*, 28.02.2017, OSIM (THE STATE OFFICE FOR INVENTIONS AND TRADEMARKS).
- P.3.** Popescu Teodor Costinel; Drumea Petrin; Ion Guta Dragos Daniel; Balan Ion, Patent no. 127042/30.09.2016- *Stand with power recirculation for endurance of hydraulic cylinders*, 30.09.2016, OSIM.
- P.4.** Nicolescu C.; **Popescu T.C.**; Alexandrescu S.; Andrei F, Patent no.122921/ 30.04.2010 - *Device for connecting a collector pipe to a roof groove*, 30.04.2010, OSIM.
- P.5.** Costinel POPESCU; Dan MARIN; Stefan ALEXANDRESCU, Patent no. 122584 /30.09.2009- *Seal device for drilling metal pipes under pressure*, 30.09.2009, OSIM.
- P.6.** Costinel POPESCU; Sava ANGHEL; Alexandru FEODOROV; Nicolae MIHAI, Patent no r.122187/27.02.2009- *Suction device*, 27.02.2009, OSIM.
- P.7.** NICOLESCU Constantin; BLEJAN Marian; **POPESCU Costinel**, Patent no.121999/ 30.10.2008- *Automatic installation for watering forecasting and warning*, 30.10.2008, OSIM.
- P.8.** Sava ANGHEL; **Costinel POPESCU**; Alexandru FEODOROV; Iuliana BOIANGIU, Patent no.117981/ 2002- *Vacuum assembly to drive the car clutch pedal*, 2002, OSIM.

### 6 Patent Applications:

- PA.1.** Popescu T.C.; Sovaiala Gh.; Nita I., Patent application no. A/00586-2008- *Testing device for a modular laser system*, 2008, OSIM.
- PA.2.** Nicolescu C.; **Popescu T.C.**; Cruceanu L.; Darie C., Patent application no. A/00215-22.03.2007- *Equipment for monitoring the quality of irrigation water at the outlet*, 22.03.2007, OSIM.
- PA.3.** IONITA Niculae, **POPESCU Teodor Costinel**, ENACHE Liviu, BLEJAN Marian, Patent application no. A/00714-09.10.2012- *Hydraulic servo valve*, 09.10.2012, OSIM.
- PA.4.** IONITA Niculae, BLEJAN Marian, CRISTESCU Corneliu, **POPESCU Costinel**, Patent application no. A/00955-05.12.2012- *HYDRAULIC ACCELERATION SYSTEM FOR MOTOR VEHICLES*, 05.12.2012, OSIM.
- PA.5.** DUMITRESCU Cătălin, CRISTESCU Corneliu, **POPESCU Teodor Costinel**, C.B.I. Nr. A/00702-29.09.2015 “*Stand cu sarcină hidrostatică variabilă pentru testarea rotoarelor turbinelor hidraulice la turație constantă*”, 2015, OSIM.
- PA.6.** POPESCU Teodor Costinel, RADOI Radu-Iulian, BLEJAN Marian, C.B.I. Nr. A/00765/28.10.2015 “*Stand pentru optimizarea profilului hidrodinamic al paletelor și încercări funcționale ale rotoarelor turbinelor hidraulice*”, 2015, OSIM.

### Awards:

- L.1.** "DIPLOMA OF EXCELLENCE AND FIRST PRIZE for the high scientific and technological level of achievement Technologies and new technical equipment for irrigation in agriculture that are based on the patents of Romanian inventors", Ministry of Education and Research, 2004.

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## List of research grants as project coordinator

### 10 projects conducted as Project Manager:

**M.1.** *Physics of processes for reducing energy losses and developing renewable energy resources by use of high-performance equipment*, project code PN 16 40.03.01, Financial agreement no. 5N/2016, Additional act no. 1/2017, Phase 3.1.2 *Studies on maintaining the energy efficiency of hydraulic systems over time by using modern methods of predictive maintenance*, Budget: 200 000 lei.

**M.2.** *Elaborarea unor metode specifice de simulare numerica si testare virtuala a sistemelor de actionare hidropneumatice (sahp), in vederea optimizarii performantelor energetice si functionale*, Programul NUCLEU, Proiectul de cercetare cod. PN 09-27-04-03, ”, contract de cercetare nr. 27N/27.02.2009, adit. 2/2015, etapa 4.3.1., „*Studiu de analiză structurală și funcțională a SAHP reprezentative, specifice utilajelor mobile și staționare*, Buget: 200 000 lei, adit. 4/2015, etapa 4.3.1, „*Studiu privind elaborarea schemelor functionale pentru un SAHP in circuit deschis si un SAHP in circuit inchis*”, Buget: 200 000 lei.

**M.3.** *Researches on increasing energy efficiency of fluid power systems, by applying secondary adjustment techniques—EESAHRs*, Contract no.21060/2007-Programme 4, 2007-2010, Total: 1 195 753 lei; Budget: 1 086 081 lei, CO: INOE 2000-IHP Bucharest; P1: UPB-CCEPM; P2: INMA Bucuresti; P3: SC HIDRAULICA UM Plopeni SA <http://www.ihp.ro/program4/2007/EESAHRs/index.htm>

**M.4.** *Cercetari privind utilizarea eficienta a apei de irigat, prin lucrari de nivelare executate cu utilaje terasiere bazate pe comanda laser si actionare electrohidraulica a organelor de lucru-NUTCL (Researches on efficient use of irrigation water through leveling works performed with navy machines based on laser control and electrohydraulic operation of working bodies)*, Contract no.728/2006- CEEX Programme -Module 4-MENER, 2006-2008, Budget: 1 500 000 lei, CO:INOE 2000-IHP Buc; P1: INMA Buc.; P2: ICPA Buc.; P3: USAMV Buc. [http://www.ihp.ro/Site\\_CEEX/2006/nutcl/index.htm](http://www.ihp.ro/Site_CEEX/2006/nutcl/index.htm)

**M.5.** *Technological installation and procedure for manufacturing parabolic concentrators of solar radiation*, Contract no. 192/2005- INVENT Programme, 2005-2006, Total:232 000 lei; Budget: 160 000 lei, CO: INOE 2000-IHP Buc.; P1: SC ROMFLUID SA Buc.

**M.6.** *Method and modular device for cutting concrete walls, floors and beams*, Contract no. 238/202- MENER Programme, 2002-2005, Total: 1 325 000 lei; Budget: 1 000 000 lei, CO: INOE 2000-IHP Buc., P1: SC ROMFLUID SA Buc.

**M.7.** *Electro- mechano-hydraulic system for vibration on an axis testing of subassemblies*, Contract no. 3221/2002- CALIST Programul, 2002-2005, Total: 933 000 000 lei; Budget: 653 000 000 lei, CO: INOE 2000-IHP Buc.; P1: SC ORASD 98 SRL Buc.

**M.8.** *Irrigation installation with reel and hose equipped with electrohydraulic system for adjustment of working parameters*, Contract no. 42/2002- INVENT Programme - PRIORITY PROGRAMMES, 2002-2004, Total: 5 020 000 lei; Budget: 3 500 000 lei, CO: INOE 2000-IHP Buc.; P1: ICITID Baneasa-Giurgiu; P2: CERITEX SA Brasov; P3: SC GENERAL FLUID SA Buc.; P4: USAMV Buc.

**M.9.** *Methodology and means of testing the quality of general purpose hydraulic cylinders*, Contract no. 2138/2001- CALIST Programme, 2001-2003, Total: 643 mil. lei; Budget: 450 mil. lei, CO: INOE 2000-IHP Buc.; P1: SC ORASD 98 SRL Buc.

**M.10.** *Research on hydraulic systems and equipment specific to transportation used in lifting and in line restoring the derailed rolling stock (underground, tram, train)*, Contract no. 539/2000- ORIZONT 2000 Programme, 2000-2001, Budget: 300 000 lei INOE 2000-IHP Buc.

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PhD. Eng. Teodor Costinel POPESCU



## Projects for enterprises

1. **Project manager** for the contract „*Test stand for scale models of axial hydraulic turbines*”, gained through participation in open auction by S.E.A.P., beneficiary ICPE-CA Bucharest. Value excluding VAT = 639 000 lei
2. Verification of technical documentation for the execution of specific hydraulic installations rolling mills, at Danieli headquarters in Milan, between 15.09.2013-15.11.2013.
3. Rehabilitation and testing works in order to restore the functional parameters of hydraulic equipments which are components of installation FAG LUKAS for lifting and re-lining derailed equipment (METROREX Bucharest). **Project manager.**
4. Research on improving technical performance of installation FAG LUKAS for lifting and re-lining derailed equipment (METROREX Bucharest), through strict control of load lifting-lowering speed. **Project manager.**
5. Drafting directions for use and maintenance of installation FAG-LUKAS for lifting and re-lining derailed equipment (METROREX Bucharest). **Project manager.**
6. Research on the actuation of centrifugal pumps on the test stands using hydrostatic transmissions with adjustment of hydraulic power in the primary sector. **Project manager.**
7. Design, supervision of the execution and testing of hydraulic and pneumatic components for the locomotive speed controllers. **Project manager.**
8. Design and putting into service of the hydro pneumatic drive installation for the continuous casting line at TUROL-Oltenita. **Project manager.**  
  
Design and putting into operation of the hydraulic drive installation of the press for vulcanization of wide rubber strips at DANUBIANA SA Bucharest. **Project manager.**
9. Studies and research on the development of pneumatic equipment specific to public passenger transport designed to provide increased traffic safety. **Project manager.**

22.05.2016

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## R&D activities in enterprises

1. Pedagogical skills manifested during 15 years of university teaching; from 2001 to 2016 he collaborated with Politehnica University of Bucharest, Faculty of Energetics, Chair of Hydraulics, Hydraulic Machinery and Environmental Engineering, Laboratory of hydraulic and pneumatic drives controls (ACHP), where he taught laboratory tutorial classes in the subject Hydraulic and Pneumatic drives controls.
2. Elaboration and delivering training classes in Fluid Power systems to Romanian engineers working in this field.
3. Elaboration and delivery of training courses for technical staff servicing pneumatic drive installations of breweries in Baia-Mare.

22.05.2016

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