FACULTY OF MANAGEMENT IN PRODUCTION AND TRANSPORTATION



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RESEARCH CENTRE IN ECONOMIC ENGINEERING – CCIE

GENERAL PRESENTATION

The Research Centre in Economic Engineering (Centrul de Cercetare în Inginerie Economică CCIE) was founded in 2001.

The main aim of the Research Centre in Economic Engineering (CCIE) is to develop interdisciplinary high-level research in the fields of performance management for firms and clusters, technical and production systems engineering, the market economy development in Romania, the progress of transition, financial management in Romania. It offers the research results in these fields to the interested production and transportation companies and organisations. CCIE is a member of the Romanian Economic Engineering Consortium (28 Romanian Universities).

The location of the CCIE is in the Faculty of Management in Production and Transportation, ROMÂNIA, 300191 Timişoara, 14, Remus Str.

 The head of the CCIE is *Prof. dr. eng. Horia POPA*

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The Centre in Economic Engineering (CCIE) is organised in several research divisions:

- Research Division in Performant Management for Firms and Clusters
- Research Division for Technical and Production Systems Engineering
- Research Division for Financial Management

RESEARCH DIVISION IN PERFORMANT MANAGEMENT FOR FIRMS AND CLUSTERS

CONTACT:

The head of the division is Prof. dr. eng. Horia POPA Department of Management Tel. +40 256 404038 Fax. +40 256 404034 E-mail: hpopa@eng.utt.ro

RESEARCH FIELDS

- » integrated competitiveness and value management
- » performance marketing
- » management information systems
- » project management
- » risk management
- » total quality management
- » production management

KEYWORDS

firms, clusters, competitiveness, management, marketing, quality, risk, industrial production, civil engineering production, information systems

MAIN ACTIVITIES

- » development of new integrated methods in management and marketing
- » optimal integrated technologies and management
- » consulting in management and marketing

RESEARCH PROJECTS

- 1. CNCSIS Grant 474/2003: *The competitiveness management for Romanian industrial companies,* Period: 2003 2005, Value: 280,000,000 ROL
- Director: Prof. dr. eng. Popa Horia Liviu
- Research team: Prof. dr. eng. Ignaton E. Assoc. prof. dr. eng. Drăghici A. Assoc. prof. dr. eng. Proștean G. Assist. mat. ec. Pater F.
- 2. Leonardo Grant I 04 DFPP 154101 / 2004: *Risk* management

Value: 7.500 EUR

Director: Prof.dr.eng. Izvercian M.

Research team: Assist. dr. eng. Tăucean I. Assist. ec. Daianu C.

PUBLICATIONS

BOOKS

- 1. Popa, H.L., *The Systems Theory and Engineering*, Politehnica Publishing House, Timisoara, 2004, ISBN 973-8247-74-8, 239 pages (published in Romanian)
- Oană, T.L., *The Systemic Analysis of the Civil Engineering Enterprises*, Politehnica Publishing House, Timisoara, 2004, ISBN 973-625-192-6, 355 pages (published in Romanian)

PUBLISHED PAPERS

- Popa, H.L., Iovescu, M., Junie, A., *The* competitiveness development of the SMEs clusters in Timisoara Zone and in Region 5 West from Romania, Clusters of Enterprises and the Internationalisation of SMEs. The Case of the Romanian Region of Timisoara, OECD, LEED, Paris, 2004, pp. 1–4, <u>www.oecd.org/</u> (published in Romanian)
- Popa, H.L., Pater, L.R., *The competitiveness analysis*, Scientific Bulletin of the "Politehnica" University of Timisoara, Romania, Transactions on Management, Engineering Economy,

Transportation Engineering, Tome 49(63), 2004, pp. 3-16, ISSN 1224-6050 (published in Romanian)

- Popa, H.L., Unitary methodology in the management of the competitiveness, Scientific Bulletin of the "Politehnica" University of Timisoara, Romania, Transactions on Management, Engineering Economy, Transportation Engineering, Tome 49(63), 2004, pp. 53-60, ISSN 1224-6050 (published in Romanian)
- Popa, H.L., Izvercian, M., Abrudan, I., Mateescu, E., *The Program "Competitive Romania"*, Journal "Management şi Inginerie Economică", vol. 3, nr. 1(9), 2004, pp. 75-83, ISSN 1583-624X (published in Romanian)
- Kovacs, F.V., Popa, H.L., Contributions to mathematical modeling of network of company using relation between "pair of frames", Robotica & Management, Tome 9, nr. 1, 2004, pp. 26-30, ISSN 1453-2069 (published in Romanian)
- Tăroată, A., Pîrvu, M., Obtaining total quality by developing and implementing continuous improvement, Scientific Bulletin of the "Politehnica" University of Timisoara, Romania, Transactions on Management, Engineering Economy, Transportation Engineering, Tome 49(63), 2004, pp. 17-24, ISSN 1224-6050 (published in Romanian)
- Tăucean, I., Tămăşilă, M., Optimization of production decisions using relations diagrams, Scientific Bulletin of the "Politehnica" University of Timisoara, Romania, Transactions on Management, Engineering Economy, Transportation Engineering, Tome 49(63), 2004, pp. 25-34, ISSN 1224-6050 (published in Romanian)
- Tămăşilă, M., Tăucean, I., Intreprenorial management – present and views, Scientific Bulletin of the "Politehnica" University of Timisoara, Romania, Transactions on Management, Engineering Economy, Transportation Engineering, Tome 49(63), 2004, pp. 35-42, ISSN 1224-6050 (published in Romanian)
- Mihărtescu, A.A., Dupţa, P.E., Considerations concerning the strategy of prices adapting in a competitive market, Scientific Bulletin of the "Politehnica" University of Timisoara, Romania, Transactions on Management, Engineering Economy, Transportation Engineering, Tome 49(63), 2004, pp. 43-60, ISSN 1224-6050 (published in Romanian)
- Cociu, N., *Time series in sales foresights*, Scientific Bulletin of the "Politehnica" University of Timisoara, Romania, Transactions on Management, Engineering Economy,

Transportation Engineering, Tome 49(63), 2004, pp. 61-72, ISSN 1224-6050 (published in Romanian)

- Dupţa, P.E., *Traditional channels versus vertical* marketing systems, Scientific Bulletin of the "Politehnica" University of Timisoara, Romania, Transactions on Management, Engineering Economy, Transportation Engineering, Tome 49(63), 2004, pp. 73-82, ISSN 1224-6050 (published in Romanian)
- 12. Karagiannis, S., Apostolou, A., Mocan, M., Accomplishments in tourism management in Creta Island, Scientific Bulletin of the "Politehnica" University of Timisoara, Romania, Transactions on Management, Engineering Economy, Transportation Engineering, Tome 49(63), 2004, pp. 83-94, ISSN 1224-6050 (published in Romanian)
- Alan, P., Oană, T.L., Production planning in constructions, Scientific Bulletin of the "Politehnica" University of Timisoara, Romania, Transactions on Management, Engineering Economy, Transportation Engineering, Tome 49(63), 2004, pp. 95-100, ISSN 1224-6050 (published in Romanian)
- Muţiu, T., Méthodes de programmation opérative des travaux des réparations, Scientific Bulletin of the "Politehnica" University of Timisoara, Romania, Transactions on Management, Engineering Economy, Transportation Engineering, Tome 49(63), 2004, pp. 101-108, ISSN 1224-6050 (published in Romanian)
- Drăghici, A., *The necessity and modalities for limit the occupational diseases risks in Romania*, Scientific Bulletin of the "Politehnica" University of Timisoara, Romania, Transactions on Management, Engineering Economy, Transportation Engineering, Tome 49(63), 2004, pp. 109-120, ISSN 1224-6050 (published in Romanian)

PHD THESIS

Tăucean, I. Contributions regarding decision optimisation in engineering systems, PhD supervisor: Prof. dr. eng. Constantin Dumitrescu

PERSPECTIVE DOMAINS

- » competitive integrated policies and management at regional level
- » development of expert systems for management
- » competitiveness centres and networks

RESEARCH TEAM

Prof.dr.eng. Horia Liviu POPA Prof.dr.eng. Monica IZVERCIAN Prof.dr.eng. Anghel TĂROATĂ Prof.dr.eng. Elemer IGNATON Assoc.Prof.dr.eng. Attila FOLDVARY Assoc.Prof.dr.eng. Traian MUȚIU Assoc.Prof.dr.eng. Nicolae COCIU Assoc.Prof.dr.eng. Păun ALAN Assoc.Prof.dr.eng. Tiberiu Liviu OANĂ Lect.dr.eng. Gabriela PROȘTEAN Assist.dr.eng. Ilie TĂUCEAN Assist.eng. Adrian PUGNA Assist.eng. Florin TÂMPLARU Assist.eng. Matei TĂMĂȘILĂ Assist.eng. Gabriela STRĂUȚI NEGRU Assist.eng. Monica TION Assist.eng. Andreea MIHĂRTESCU Assist.eng. Mircea NEGRUȚIU

RESEARCH DIVISION FOR TECHNICAL AND PRODUCTION SYSTEMS ENGINEERING

CONTACT

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RESEARCH FIELDS

Road vehicles dynamics and propulsion systems Reliability and maintenance Urban transport Chemical and noise pollution in traffic, Statistics in road traffic and the traffic flow theory Road traffic system design Road traffic safety and automated control Intelligent transport systems (ITS)

KEYWORDS

traffic safety, transportation, vehicles, systems

MAIN ACTIVITIES

- » organization and management of road traffic systems
- » planning, design and optimisation of goods and people transport
- » ensuring the road traffic safety and environmental protection
- » exploitation and maintenance of the surveillance, control, monitorship, automatization equipments and the means of directing the road traffic

RESEARCH PROJECTS

1. AMTRANS- 3CO2 –PNCDI: Convergent solutions for limitating the congestion and pollution effects in urban traffic ambushes; Period: 2002-2004, Value: 354,500,000 ROL

Director: Prof. dr. eng. Lucaci Gheorghe Research Team: Assoc. prof. dr. eng. D. Iancului Lect. dr. eng. A. Gonczi Lect. dr. eng. W. Stefănescu 2. Consulting and technical expertise on road traffic for projects made by SC Aghi Priect SRL; Period 2003-2004; Value: 304,640,000 ROL

Director: Lect. dr. eng. GONCZI Attila

PUBLICATIONS

BOOKS

Mocan, M., Instruction package for human resources development in small and middle-sized enterprises, Solness Publishing House, Timişoara, 2004, ISBN 973-687-255-6, 210 pages (published in Romanian)

PUBLISHED PAPERS

- Ştefănescu, W., Theoretical considerations concerning the weight of machines carried on tractors, Scientific Bulletin of the "Politehnica" University of Timişoara, Transactions on Management, Engineering Economy, Transportation Engineering, 49(63), 2004, pp. 121 – 127 (published in Romanian)
- Cipleu, A., *The influence of carburization and nitration over the material tenacity and the shock reliability of gear wheels*, Scientific Bulletin of the "Politehnica" University of Timişoara, Transactions on Management, Engineering Economy, Transportation Engineering, 49(63), 2004, pp. 133 140 (published in Romanian)
- Cipleu, A., *The influence of carburization and nitration over the material structure and the gear wheel reliability*, Scientific Bulletin of the "Politehnica" University of Timişoara, Transactions on Management, Engineering Economy, Transportation Engineering, 49(63), 2004, pp. 127 132 (published in Romanian)
- Gönczi, A., Iancului, D., New traffic regulations in romania – possible effects on road safety, "On Safe Roads in the XXIst Century", 3rd conference – proceedings, October 2004, Budapest: (published on CD by PIARC, Ertico and Maut) (published in English)
- Draghici, A., Mocan, M., Man machine relation study - a methodology for the presing machines acoustic field's analyse, Romanian Journal of Tehnical Science - Applied Mecanics, Romanian Academy, 2004, pp. 55 – 64 (published in Romanian)
- Mocan, M., *The evolution of management in* SME's of Timisoara, Romanian Journal of Tehnical Science - Applied Mecanics, Romanian Academy, 2004, pp. 65 – 73 (published in Romanian)
- Draghici, A., Nitulescu, M., Mocan, M., *Ergonomics design and analysis using CATIA V5*, Annals of Oradea University, Fascicle of Management and Tehnological Engineering CD-Rom Edition, Vol. VIII, 2004 (published in Romanian)

- Mocan, M., A new competitive approach of external logistics in companiens from Timis county, Micro Cad International Scientific Conference Miscolcz, Section O, 2004, pp. 96 – 103 (published in English)
- Mocan, M., Development plan for increasing competitivity for "Traian Vuia" International Airoport, Micro Cad International Scientific Conference Miscolcz, Section O, 2004, pp. 104 – 111 (published in English)
- Ştefănescu, W., Iancului, D., Studies concerning the basaltic materials in agricultural machinery bulding, Scientifical Research, Series VIII, USAB, 2004, pp. 28–33 (published in Romanian)
- Iancului, D., Ștefănescu, W., An hand held electrostatic spinning disc atomiser, Scientifical Research, Series VIII, USAB, 2004, pp. 52 – 61 (published in Romanian)
- 12. Drăghici, A., Niţulescu, M., *Human interferance optimisation using on ergonomics design and analysis methology*, Manufacturing and Management in the 21 Century, Skopje, Macedonia, 2004, pp. 48–57 (published in English)
- 13. Gonczi, A., *New trafic regulations in Romania effects on rood safety*, On Safe Roads in the XXI Century, Budapest, 2004, pp. 76–85 (published in English)

PHD THESIS

- 1. Vandici Ionel, *Contributions regarding the influence of physical-mechanical soil proprietes on wear off strength of agricultural tillaje,* PhD supervisor: Prof. dr. eng. Şandru Aftanasie
- 2. Cipleu Adrian, *Research regarding the shock fracture of hardnessed steels by surface treatment*, PhD supervisor: Prof. dr. eng. Dumitru Ion

PERSPECTIVE DOMAINS

- » telematics in transportation
- » road safety Inspections and Audit
- » new techniques in traffic surveillance and control

RESEARCH TEAM

Prof.dr.eng. Ioan DĂNILĂ Assoc.prof.dr.eng. Ioan VOICU Assoc.prof.dr.eng. D. IANCULUI Assoc.prof.dr.eng. M. MOCAN Assoc.prof.dr.eng. A. DRĂGHICI Lect.dr.eng. W. STEFĂNESCU Lect.dr.eng. A. GONCZI Assist.dr.eng. I. VANDICI Assist.dr.eng. A. Cipleu Assist.dr.eng. P. PADUCEL Assist. R. URSULESCU Assist.dr.eng. A. PUGNA

RESEARCH DIVISION FOR FINANCIAL MANAGEMENT

CONTACT

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RESEARCH FIELDS

- » principles of market economy
- » investment politics
- » financial politics
- » company finances
- » finance and banking
- » business law

KEYWORDS

market economy, finance, banking, European economy, financial strategies, dividend

MAIN ACTIVITIES

- » share market in Romania
- » the progress of financial transition
- » inflation and unemployment
- » corporate finance policies
- » recent changes in Romanian taxation

PUBLICATIONS

BOOKS

- 1. Duran, V., Cozac, A., *Economical-financial analysis Theory and Practice*, vol I, Eurostampa Publishing House, Timişoara, 2004, ISBN 973-687-243-2; 973-687-246-7, 150 pages (published in Romanian)
- Duran, V., Cozac, A., *Economical-financial* analysis Theory and practice, vol II, Eurostampa Publishing House, Timişoara, 2004, ISBN 973-687-243-2; 973-687-246-8, 150 pages (published in Romanian)
- 3. Duran, V., Maniov, V., *Company's economy and management*, Eurostampa Publishing House, 2004, ISBN 973-687-247-5, 295 pages (published in Romanian)
- Duran, V., *Economy. Theory and practice.*, vol II, Eurostampa Publishing House, 2004, ISBN 973-687-286-6; 973-687-280-7, 210 pages (published in Romanian)
- 5. Grecu, E., *Elements of microeconomics*, Dacia Europa Nova Publishing House, Lugoj, 2004, ISBN 973-639-049-7, 158 pages (published in Romanian)

 Grecu, E., *Initiation in accounting*, Eurostampa Publishing House, Timişoara, 2004, ISBN 973-687-276-9, 185 pages (published in Romanian)

PUBLISHED PAPERS

- Dobran, M., The functional market economy an economic criterion of Romania's accession to the European Union, Scientific Bulletin of the "Politehnica" University of Timişoara, Transactions on Economics and Social Science, 2004, pp. 7-13 (published in French)
- Dobran, M., Călin, D., Some considerations on price – as an economic information, Scientific Bulletin of the "Politehnica" University of Timişoara, Transactions on Economics and Social Science, 2004, pp. 13-19 (published in French)
- 3. Pop, S, Vartolomei, M., *The structural functioning reorganisation of Romanian economy in the frame of integration process in European structures*, Scientific Bulletin of the "Politehnica" University of Timişoara, Transactions on Economics and Social Science, 2004, pp. 80-87
- 4. Grecu, E., *The road to economic growth*, Scientific Bulletin of the "Politehnica" University of Timişoara, Transactions on Economics and Social Science, 2004, pp. 32-37
- Grecu, E., Inflation's costs and benefits, Scientific Bulletin of the "Politehnica" University of Timişoara, Transactions on Economics and Social Science, 2004, pp. 37-41
- 6. Bărglăzan, D., Adopting a strategy of direct inflation target in Romania, Scientific Bulletin of the "Politehnica" University of Timişoara,

Transactions on Economics and Social Science, 2004, pp. 19-26

- Ciupală, L.B., *The financing activity in Romania*, Scientific Bulletin of the "Politehnica" University of Timişoara, Transactions on Economics and Social Science, 2004, pp. 26-32
- Bota, C., *The income method as an evaluation method on the stock market*, Scientific Bulletin of the "Politehnica" University of Timişoara, Transactions on Economics and Social Science, 2004, pp. 104-110
- Bota, C., Some considerations regarding the share price fluctuation, risk management and investment strategies, Scientific Bulletin of the "Politehnica" University of Timişoara, Transactions on Economics and Social Science, 2004, pp. 110-119

PHD THESIS

Călin, D., Implications of the European Monetary Unifications on the candidate countries: the case of Romania, PhD supervisor: Silviu Cerna, Jacques Leonard

PERSPECTIVE DOMAINS

- » financial decisions in small and middle-sized companies and their services
- » investment strategies in small and middle-sized companies and their services

RESEARCH TEAM

Prof.dr. ec. Vasile Duran, Prof.dr.ec. Maria-Mariana Dobran, Assoc.Prof.dr.ec. Septimiu Pop Lect.dr.ec. Eugenia Grecu Assist.dr. ec. Diana Bărglăzan Assist.ec. Dan Duran