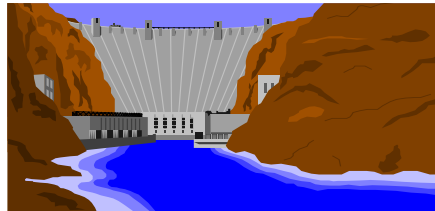


FACULTY OF HYDROTECHNICAL ENGINEERING



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RESEARCH CENTER FOR MODELLING, DRAWING AND BEHAVIOUR MONITORING OF THE HYDROTECHNICAL ARRANGEMENTS

GENERAL PRESENTATION

The center was set up in 2001 and certified by the Romanian Research Authority in Higher Education (CNCSIS certificate no. 99 / CC-C, 11 May 2001).

The main research fields of the center lies generally on water engineering, having as subfields:

- Water constructional works
- Urban sanitation
- Land reclamation arrangement.

Based on the long experience of the researchers and the existing research infrastructure, the center is able to manage engineering projects in fields connected to water engineering.

MAIN ACTIVITIES

- managing research projects in water engineering
- design and technical assistance in Hydrotechnical structures
- water constructional works
- rivers regulation works
- waterways and harbors
- modern technologies in water engineering
- dinking and industrial water supply network and plants
- waste water treatment plants
- sewage network
- water biology and chemistry
- water quality monitoring
- numerical modeling in surface water and groundwater flow
- numerical modeling of the pollutants transport in groundwater
- land reclamation, irrigations and drainages
- rural sustainable development
- soil science studies and soil erosion
- polluted soils rehabilitation
- surveying, cadastre
- waste disposal sites design and monitoring

PROJECTS

RESEARCH TEAM

Ion, M., Lazar, Gh., Popa, Gh., Fulop, E., Nicoara, S., Constantin, T.A., Ghitescu A., Busan, A., Garbaciuc C., Riiosu, J., Maries C.

1. Rearrangement and regulation of the Morilor and Zadarlac canal courses

Contract no. 280/ June, 2005

Value: 29,370 RON

Beneficiary: S.C. Bring-Consult S.R.L., Arad

2. Rearrangement and regulation of the Tiganca canal course

Contract no. 281 / May, 2005

Value: 29,370 RON

Beneficiary: S.C. Bring-Consult S.R.L., Arad

Projects Description

In the Aradul Nou district of Arad city during the weir periods the households are frequent awashed. Based on field studies regarding the runoff management technical solutions were proposed to avoid the awash by the bed rearrangement of the Tiganca and Morilor open channels.

3. Examination, design and checking works regarding the rehabilitation of the dam on Mures River at the town of Mintia

Contract no. 302 / July, 2005

Value: 30,000 RON

Beneficiary: S.C. Electrocentrale Deva S.A., Tg.Mures

Projects Description

The dam river Mures ensures the necessary industrial water for Mintia thermal power plant. The proposed technical solutions regarding the rehabilitation of the floating downstream apron which was damaged in ratio of sixty percent. In addition, protective measures on the left bank river Mures where also recommended.

4. Rehabilitation of the intake and drinking water treatment plant in Targu Mures

Contract no. 269 / June, 2005

Value: 57,880 RON

Beneficiary: S.C. TerraMed S.R.L., Tg.Mures

5. Technical design for performing the required adjustment / rehabilitation works at the objects composing the intake and treatment plant for drinking water in Targu Mures

Contract no. 311 / August, 2005

Value: 7,200 RON

Beneficiary: S.C. TerraMed S.R.L., Tg.Mures

Projects Description

The research team worked like subcontractor of the sanitation design Spanish company DITRAS. The project consists in ten structures at purification water plant Targu-Mures like basins, pumping stations which will ensure an improved state.

6. Checking of the technical design "Strengthening of the PREMO pipeline for row water transport, under passing the Arges River"

Contract no. 355 / August, 2005
 Value: 400 RON
 Beneficiary: S.C. Geoconstruct S.R.L., Craiova

Project Description

The goal of the project consists in straighten the transmission pipe line which ensure industrial water supply for Colibasi factory. Because of the 2005 summer's floods in the Argeselu River area serious damages were produced. Technical measures were established.

7. Examination report regarding the safety running state at the Isalnita water catchment dam on the Jiu River

Contract no. 367 / November, 2005
 Value: 16,000 RON
 Beneficiary: National Company "Apele Romane" – Directia Apelor Jiu, Craiova

Project Description

The necessary industrial water for thermal power plant Isalnita is ensured from Jiu River by floating dam and river intake. The system is in operation since 60's, major damages were encountered. The project consists in technical expertise on above mentioned structures.

8. Checking of several technical and execution designs: "Dike rebuilding on Timis River in Crai Nou – Graniceri area", "Breach closing on Timis River in Lugoj area", "Closing of the defense line on Barzava River in Gataia – Denta area", "Rebuilding the sand trap basins at Cosari I and Cosari II reservoirs"

Contract no. 375 / December, 2005
 Value: 2,628 RON
 Beneficiary: National Company "Apele Romane" – Directia Apelor Banat, Timisoara

9. Checking of the technical and execution design "Rebuilding the defense line on the right bank of the Bega River in Sintesti – Margina area, Timis County"

Contract no. 327 / August, 2005
 Value: 453 RON
 Beneficiary: National Company "Apele Romane" – Directia Apelor Banat, Timisoara

Project Description

During April 2005 huge floods were encountered in Banat County, West side of Romania. The damming river works were rebuilt based on the technical measures proposed by the project, especially from point of view of strength and stability.

RESEARCH TEAM

Cretu, Gh., Beilici, E., Mocanu, F.

10. Study of the water floods included to the management of Banat hydrographic area

Grant code 718 / 2005-2006 CNCSIS
 Value: 39,500 RON
 Beneficiary: The Ministry of Education and Research

RESEARCH TEAM

Ciomocos, D.F., Nicoara, S., Constantin, T.A.

11. Establishment and study of the stresses in the structure of a steel hall

Contract no. 260 / May, 2005
 Value: 3,000 RON
 Beneficiary: S.C. Ilian S.R.L., Timisoara

Project Description

The project consists in the design of an industrial steel hall. The calculus was made in order to obtain the state of stress in the all structure components.

RESEARCH TEAM

Man, T., Wehry A.M., Blenesi – Dima, A.F., Maries, M.C., Cotoara, R., Modra, C.

12. Studies and research of geosintetic materials use for works in land improvement. Final interpretations, solutions and applying technologies

Contract no. 27688/ 14.03.2005
 Value 12,000 RON
 Beneficiary: CNCSIS

RESEARCH TEAM

Florea, A., Popescu, D.

13. Reinforced concrete with fiber

Contract nr. 27688/ 14.03.2005
 Value 15,000 RON
 Beneficiary: CNCSIS cod 632

PUBLICATIONS

BOOKS

1. David, I., *Mathematisch numerische Modellierung Technischer Systeme*, Cuvillier Verlag Göttingen, Germany, 2005, ISBN 3-86537-590-1, 250 pages
2. Doandea V., *Applied Topography*, (Published in Romanian), Politehnica Publishing House, Timisoara, 2005, 400 pages
3. Ciomocos, D.F., Nicoara, S.V., Constantin, A.T., *Strength of Materials. Applications*, Vol. II, (Published in Romanian), Politehnica Publishing House, Timisoara, 2005, 257 pages

PUBLISHED PAPERS

1. Anim-Addo, S., David, I., Tarek, D., *Scenario-based optimization of parameter-sensitive complex multiphase flow*, accepted for

- publishing in Proceedings of the Forum Bauinformatik, 27–30 Sept. 2005, Cottbus, Germany
2. David, I., Anim-Addo, S.B., *Gitter-basierte Abschöpfmodelle von Mehrphasenströmungsvorgängen*, accepted for publishing in Proceedings of the Forum Bauinformatik, 27–30 Sept. 2005, Cottbus, Germany
 3. Zang, M., David, I., *A Multi-Object Singularity Method for Potential Problems in heterogeneous Continuum Media*, Geophysical Research Abstracts, Vol. 7, 03200, SRef-ID: 1607-7962/gra/EGU05-A-03200, European Geosciences Union, ISSN 1029-7006, 2005
 4. David, I., *A New Linearization Technique of the Advection Diffusion Equation for modelling free-Phase NAPL Spreading in Groundwater*, Geophysical Research Abstracts, Vol. 7, 03175, SRef-ID: 1607-7962/gra/EGU 05-A-03175, European Geosciences Union, ISSN 1029-7006, 2005
 5. Anim-Addo, S.B., David, I., *Evaluating aquifer parameters for analytical groundwater models on contaminated sites*, de Conceicao Cunha, M.; Brebbia, C. A. (Hrsg.): Water Resources Management III, WIT Press Southampton, ISBN 1-84564-007-1, England, 2005, pp. 79-88
 6. David, I., *In-situ Treatment of Groundwater Containing high Iron Concentration*, Proceedings of the 30th Annual Congress of the American Romanian Academy of Arts and Science, ISBN 9975-75-313-2, 2005, pp. 527-535
 7. Carabet, A., Achim, C., Girbaciuc, A., Batea, F., *Appreciation of water quality in conformity with European Union quality standards*, Scientific Bulletin of the “Politehnica” University of Timișoara, Transactions on Hydrotechnics, Tom 50(64), Fasc. 1, 2005, ISSN 1224-6042, pp. 17-20
 8. Girbaciuc, C., Ion, M., Girbaciuc, A., *The calculus of the volume and surface of a water storage by a computer program*, Scientific Bulletin of the “Politehnica” University of Timișoara, Transactions on Hydrotechnics, Tom 50(64), Fasc. 1, 2005, ISSN 1224-6042, pp. 242-245
 9. Mirel, I., Pode, V., Florescu, C., Podoleanu, C., Bătea, F., *Considerations regarding the increase of the retaining capacity of the filtering mediums*, Romanian Chemistry Society, February, vol. 56 Chem. Abs RCBUAU 56(2), 2005, ISSN 0034-7752, pp. 190-196, Review noticed by Chemical Abstracts Current Contents ISI. Impact index for 2003: 0,291
 10. Mirel, I., *Risk of Polluting of the Water Sources*, Scientific Bulletin of the “Politehnica” University of Timișoara, Transactions on Hydrotechnics, Tom 50(65), 2005, ISSN 1224-6042, pp. 13-16
 11. Jura, C., Mirel, I., Podoleanu, C., Achim, C., *Optimisierung der Klärprozesse in Kläranlagen für Ständisches Abwasser*, Scientific Bulletin of the “Politehnica” University of Timișoara, Transactions on Hydrotechnics, Tom 50(64), 2005, ISSN 1224-6042, pp. 1-8
 12. Mițașcă, M., Mirel, I., Ionescu, Gh., Prichici, M., Ramocea, T., Păcurar, I., *The Use of Geothermal Waters in Motel Chains*, Scientific Bulletin of Oradea, Fasc. Installations for constructions and Ambiental Comfort, vol. VIII, 2005, Oradea University Publishing House, pp. 76-82
 13. Mițașcă, M., Mirel, I., Prada, M., Ramocea, T., Pantea, E., *Degasification of Geothermal Waters*, Scientific Bulletin of Oradea, Fasc. Installations for constructions and Ambiental Comfort, vol. VIII, 2005, Oradea University Publishing House, pp. 76-82
 14. Mirel, I., Moldovan, Gh., *The Circulation and Neutralisation of the Home Waste in Timiș Country*, Scientific Bulletin of Oradea, Fasc. Hydro-town constructions and installations, vol. VIII, 2005, Oradea University Publishing House, pp. 89-96
 15. Pantea, E., Mirel, I., Ramocea, T., *The anaerob-aerob purge systems an eficient alternative for the purge of warm-aut waters from the beer industry*, Scientific Bulletin of Oradea, Fasc. Hydro-town constructions and installations, vol. VIII, 2005, Oradea University Publishing House, pp. 115-119
 16. Pantea, E., Mirel, I., Ramocea, T., *The type of reactors wich or use to clean the anaerobe and aerobe warn-out waters from the beer industry*, Scientific Bulletin of Oradea, Fasc. Hydro-town constructions and installations, vol. VIII, 2005, Oradea University Publishing House, pp. 120-127
 17. Marinescu, I.R., Marinescu, I., Mirel, I., *Notes to establish technical inventory*, Scientific Bulletin of the “Politehnica” University of Timișoara, Transactions on Hydrotechnics, Tom 50(64), Fasc.1, 2005, ISSN 1224-6042, pp. 105-108
 18. Jura, C., Mirel, I., Podoleanu, C., Bătea, F., *The improvement of technological proceses in water treatment stations*, Scientific Bulletin of the “Politehnica” University of Timișoara,

- Transactions on Hydrotechnics, Tom 50(64), 2005, ISSN 1224-6042, pp. 98-104
19. Carabeț, A., Podoleanu, C., Beilicci, R., Bâtea, F., *Modernization of the water distribution system from Timișoara*. Scientific Bulletin of the "Politehnica" University of Timișoara, Transactions on Hydrotechnics, Tom 50(64), Fasc. 1, 2005, ISSN 1224-6042, pp. 82-97
 20. Carabeț, A., Achim, A., Gîrbaciu, A., Bâtea, F., *Appreciation of water quality in conformity with European Union Normative*, Scientific Bulletin of the "Politehnica" University of Timișoara, Transactions on Hydrotechnics, Tom 50(64), Fasc. 2, 2005, ISSN 1224-6042, pp. 17-20
 21. Sumalan, I., Achim, C., *Contributions on the hydraulic calculus of the ring-shaped pipe*, Scientific Bulletin of the "Politehnica" University of Timișoara, Transactions on Hydrotechnics, Tom 50(64), Fasc.1, 2005, ISSN 1224-6042, pp. 212-217
 22. David, I., Beilicci, R., *Application of the optimization approach to groundwater management*, Scientific Bulletin of the "Politehnica" University of Timișoara, Transactions on Hydrotechnics, Tom 50(64), Fasc. 2, 2005, ISSN 1224-6042, pp. 21-24
 23. Lazar, Gh., Ghitescu, M.A., *Computation of the stresses in an anchoring block by using the classic method and the finite elements method*, Scientific Bulletin of the "Politehnica" University of Timisoara, Transactions on Hydrotechnics, Tom 50(64), No. 1, 2005, ISSN 1224-6042, pp 54-61
 24. Ion, M., Ghitescu, M.A., *1995-2005 – Ten years of partnership between T.U. Graz Civil Engineering Faculty, Hydraulic Engineering Institute, and P.U. Timisoara Hydrotechnical Engineering Faculty*, Scientific Bulletin of the "Politehnica" University of Timisoara, Transactions on Hydrotechnics, Tom 50(64), No.1, 2005, ISSN 1224-6042, pp. 312-317
 25. Constantin, A.T., Nicoara, S.V., Busan, A.I., *Opportunity and procedure for considering a Hydropower Pumping Plant with pumped storage in the energy graphs of the National Power System*, Scientific Bulletin of the "Politehnica" University of Timisoara, Transactions on Hydrotechnics, Tom 50(64), No.1, 2005, ISSN 1224-6042, pp. 9-14
 26. Constantin, A.T., Popa, Gh., Constantin, L., *Opportunity and procedure for considering a Hydropower Pumping Plant in the energy graphs of the National Power System*, Scientific Bulletin of the "Politehnica" University of Timisoara, Transactions on Hydrotechnics, Tom 50(64), No.1, 2005, ISSN 1224-6042, pp. 15-20
 27. Preluschek, E., *What will be the fate of the Bega Channel?*, Scientific Bulletin of the "Politehnica" University of Timisoara, Transactions on Hydrotechnics, Tom 50(64), No. 1, 2005, ISSN 1224-6042, pp. 38-41
 28. Preluschek, E., Preluschek, R., *The state of art of the hydrotechnical junctions Sanmartinul Maghiar and Sanmihaiul Roman on Bega channel*, Scientific Bulletin of the "Politehnica" University of Timisoara, Transactions on Hydrotechnics, Tom 50(64), No. 1, 2005, ISSN 1224-6042, pp. 34-37
 29. Cretu, Gh., *Lasting development of water management; Vision and action*, Proceedings of the World Water Day 2005 – Water for life – Lasting development of water resources, 2005, pp. 9-12
 30. Dordea, T., Cretu, Gh., Popoviciu, M.O., *Restoration of the Rovinita Mare – Banloc Hydrotechnical System*, Scientific Bulletin of the "Politehnica" University of Timisoara, Transactions on Hydrotechnics, Tom 50(64), No. 1, 2005, ISSN 1224-6042, pp. 21-26
 31. Mocanu, F., *Ecohydrology, a tool for the lasting management of water resources*, Scientific Bulletin of the "Politehnica" University of Timisoara, Transactions on Hydrotechnics, Tom 50(64), No. 1, 2005, ISSN 1224-6042, pp. 246-249
 32. Mocanu, F., *Few models for an ecological – hydrological running of rivers*, Proceedings of the World Water Day 2005 – Water for life – Lasting development of water resources, 2005, pp. 26-31
 33. Pepa, C.A., *Study regarding the water quality in the Bega catchment area*, Scientific Bulletin of the "Politehnica" University of Timisoara, Transactions on Hydrotechnics, Tom 50(64), No. 1, 2005, ISSN 1224-6042, pp. 250-253
 34. Pepa, C.A., *World water crisis*, Proceedings of the World Water Day 2005 – Water for life – Lasting development of water resources, 2005, pp. 1-4
 35. Riti, A., *Current techniques and technologies for diminishing the negative impact in the Motru mining site*, Scientific Bulletin of the "Politehnica" University of Timisoara, Transactions on Hydrotechnics, Tom 50(64), No. 1, 2005, ISSN 1224-6042, pp. 182-185
 36. Riti, A., *General pollution systems for groundwater*, Proceedings of the World Water Day 2005 – Water for life – Lasting

- development of water resources, 2005, pp. 62-65
37. Beilicci, E., Beilicci, R., *Estimation of the solid flow in a hydrographic basin*, Scientific Bulletin of the "Politehnica" University of Timisoara, Transactions on Hydrotechnics, Tom 50(64), No. 1, 2005, ISSN 1224-6042, pp. 222-225
 38. Girbaciuc, C., Ion, M., Girbaciuc, A., *Computer estimation of the water surface and water volume for a reservoir*, Scientific Bulletin of the "Politehnica" University of Timisoara, Transactions on Hydrotechnics, Tom 50(64), No. 1, 2005, ISSN 1224-6042, pp. 242-245
 39. Matei, F., Olaru, G., Ion, M., Popa, Gh., *Strain and stress state distribution study for a loading water chamber with two compartments*, Scientific Bulletin of the "Politehnica" University of Timisoara, Transactions on Hydrotechnics, Tom 50(64), No. 1, 2005, ISSN 1224-6042, pp. 62-65
 40. Maries, C., Riiosu, J., Popa, Gh., Ion, M., Lazar, Gh., *Computer assisted modeling of infiltrations under a low overflowing dam by the the finite elements method*, Scientific Bulletin of the "Politehnica" University of Timisoara, Transactions on Hydrotechnics, Tom 50(64), No. 1, 2005, ISSN 1224-6042, pp. 66-71
 41. Olaru, G., Popa, Gh., Matei, F., Maries, C., *Lock chamber computation by the help of Finite Elements Method*, Scientific Bulletin of the "Politehnica" University of Timisoara, Transactions on Hydrotechnics, Tom 50(64), No. 1, 2005, ISSN 1224-6042, pp. 72-77
 42. Doandea, V., Eleş, G., *A possibility of processing topographical data obtained with classic topographical equipment in acquiring digital plans*, The role of cadastre in market economy and its practicability in local administration, Surduc, Timișoara, ISBN 973-7650-05-0, 2005, pp. 80-90
 43. Doandea, V., Racoviceanu, M., Tarau D., *Cadastre 2014*, The role of cadastre in market economy and its practicability in local administration, Surduc, Timișoara, ISBN 973-7650-05-0, 2005, pp. 190-192
 44. Doandea, V., Eleş, G., *Horizontal displacement pursue methodology of circular construction objectives*, Scientific Bulletin of the "Politehnica" University of Timișoara, Transactions on Hydrotechnics, Tom 50(64), No. 1, 2005, ISSN 1224-6042, pp. 286-289
 45. Doandea, V., Eleş, G., *Application of topographical electronic equipment in estimating the fill up rate of storage reservoirs*, Scientific Bulletin of the "Politehnica" University of Timișoara, Transactions on Hydrotechnics, Tom 50(64), No. 1, 2005, ISSN 1224-6042, pp. 282-285
 46. Iosif, A., Eleş, G., *Analytical modeling of liquid flow that cross through a hydroenergetical network*, Scientific Bulletin of the "Politehnica" University of Timișoara, Transactions on Hydrotechnics, Tom 50(64), No. 1, 2005, ISSN 1224-6042, pp. 196-199
 47. Wehry, A., Orlescu, M., Nuțaș-Vancia, G., Hălbac-Cotoară, R., *Efficient technological solutions for restoring the irrigation in the irrigation-drainage system Aranca at Cenad, Timiș County*, Scientific Bulletin of the "Politehnica" University of Timișoara, Transactions on Hydrotechnics, Tom 50(64), No. 1, 2005, ISSN 1224-6042, pp. 166-173
 48. Man, E.T., Wehry, A., Pasztai, Z., *New Ecological landfill in Oradea - Romania*, XIIth Symposium on Analytical and Environmental Problems, 26 September 2005, University of Szeged, Department of Inorganic and Analytical Chemistry, Hungary, 2005
 49. Man, E.T., *The role of our research in water management in land reclamation and improvement arrangements and environmental protection*, 50th Jubilee of the Hungarian Committee of Irrigation and Drainage HUCID / ICID, Budapest, Hungary, 11-12 October, 2005
 50. Kovacs, G., Hudac, C., Man, T.E., Blenesi-Dima, A., *Geocomposite bentonitic, seal materials for hydrotechnical works and environmental protection works*, Romanian Materials Journal, nr. 2, 2005, vol 35, ISSN 1583-3186
 51. Man, E.T., Campan, G., *Watering and Movement Schemes of the Mobile Sprinkler Equipments. Case Study Fantanele – Arad Irrigation System*, Scientific Bulletin of the "Politehnica" University of Timișoara, Transactions on Hydrotechnics, Tom 50(64), No. 1, 2005, ISSN 1224-6042, pp. 130-137
 52. Wehry, A., Man, E.T., Barglazan A – *Type Hydraulic Transformer and the Hydraulic Hammer (Pump) used in Local Irrigation Arrangements*, 2nd International Symposium, Renewable Energies and Sustainable Development, 22-24 September, 2005, the Danube Delta – Tulcea, Ministry of Environment and Water Management, BENA
 53. Man, E.T., Nastea, I., Blagoescu, C., Gabor, A., Lauer, I., *The SNIP reorganization of S.A. Timis – the institutional frame for retechnologization, modernization and efficient*

- exploitation of land improvement arrangements*, Scientific Bulletin of the "Politehnica" University of Timișoara, Transactions on Hydrotechnics, Tom 50(64), No. 1, 2005, ISSN 1224-6042, pp. 138-145
54. Man, E.T., Halbac-Cotoara, R., *Classical and modern methods of drainage planning used in our country and worldwide*, Scientific Bulletin of the "Politehnica" University Timișoara, Transactions on Hydrotechnics, Tom 50(64), No. 1, 2005, ISSN 1224-6042, pp. 146-153
 55. Man, E.T., Tentis, M., Suiugan, M., *GIS applications use in water bodies determination. Case study: Hydrographical sub – basin Crisul Repede*, Scientific Bulletin of the "Politehnica" University of Timișoara, Transactions on Hydrotechnics, Tom 50(64), No. 1, 2005, ISSN 1224-6042, pp. 296-299
 56. Man, E.T., Otiman, P.I., Mateoc-Sârb, N., *Rural development in Timiș County*, Timis Academic Days, IXth edition, 26-27 May, 2005, Timisoara, Romanian Academy – Timisoara Subsidiary, University of Agricultural and Veterinary Sciences
 57. Man, E.T., Iosip, C.D., Ruset, D., *Sectorial policy and UE demands regarding rural development*, Timis Academic Days, IXth edition, 26-27 May, 2005, Timisoara, Romanian Academy – Timisoara Subsidiary, University of Agricultural and Veterinary Sciences
 58. Man, E.T., Iosip, C.D., *Worldwide and Romanian rural development concepts*, Timis Academic Days, IXth edition, 26-27 May, 2005, Timisoara, Romanian Academy – Timisoara Subsidiary, University of Agricultural and Veterinary Sciences
 59. Man, E.T., Blenesi-Dima, A., *Geotextile materials and technical solution used in construction*, Timis Academic Days, IXth edition, 26-27 May, 2005, Timisoara, Romanian Academy – Timisoara Subsidiary, "Politehnica" University of Timisoara, Faculty of Civil Engineering, International Symposium, Mirton Publishing House, 2005, pp. 59-65
 60. Rares, H., Coreni, S., *The water resource tourism in hydrographic space of Banat*, World Day of Water, Proceedings of the World Water Day 2005 – Water for life – Lasting development of water resources, 2005, pp. 66-73
 61. Rogobete, Gh., Nemeș, N., Constantinescu, L., Nemeș, I., *Phosphorus Retention and Mobility in Some Acid Soils in South-Western Romania*, Scientific Bulletin of the "Politehnica" University of Timișoara, Transactions on Hydrotechnics, Tom 50(64), No. 1, 2005, ISSN 1224-6042, pp. 33-36
 62. Rogobete, Gh., Nemeș, N., *Mobile phosphorus contents in some acid soils in Bistra Hydrographyc area*, Scientific Bulletin of the "Politehnica" University of Timișoara, Transactions on Hydrotechnics, Tom 50(64), No. 1, 2005, ISSN 1224-6042, pp. 162-165
 63. Constantinescu, L., Nemeș, N., Nemeș, I., Grozav, A., *The study of soil erosion in area Bozovici-Reșița-Ezeriș*, Ovidius University Annals, Series Civil Engineering, Constanța, Romania, 2005
 64. Constantinescu, L., Rogobete, Gh., Nemeș, I., Grozav, A., *Research concerning the landslides in Caraș-Severin County*, Scientific Bulletin of the "Politehnica" University of Timișoara, Transactions on Hydrotechnics, Tom 50(64), No. 1, 2005, ISSN 1224-6042, pp. 122-129
 65. Nemeș, I., Constantinescu, L., Oncia, S., *Climatic humidity deficit during period 1998-2003 in Banat Plain*, Hidrotehnica Journal, vol. 50, no. 6, 2005, pp. 20-24
 66. Rogobete, Gh., Nemeș, N., Constantinescu, L., Nemeș, I., *Research concerning the use of entiantrophic soils in south-west Romania*, Scientific Bulletin of the "Politehnica" University of Timișoara, Transactions on Hydrotechnics, Tom 50(64), No. 1, 2005, ISSN 1224-6042, pp. 158-161
 67. Constantinescu, L., *Soil pollution by chemical fertilizers plants*, Scientific Bulletin of the "Politehnica" University of Timișoara, Transactions on Hydrotechnics, Tom 50(64), No. 1, 2005, ISSN 1224-6042, pp. 118-121
 68. Truica E.I., Popa Gh., *The rehabilitation of the old dams from Banat area. Case study: hydrotechnical junctions Costei – Topolovat*, Scientific Bulletin of the "Politehnica" University of Timișoara, Transactions on Hydrotechnics, Tom 50(64), No. 1, 2005, ISSN 1224-6042, pp. 42-53
 69. Popa Gh., Pavel, M.D., *Energetically optimization of the drillings wells front*, Scientific Bulletin of the "Politehnica" University of Timișoara, Transactions on Hydrotechnics, Tom 50(64), No. 1, 2005, ISSN 1224-6042, pp. 109-113
 70. Iacob Nemes I., *-Research Concerning the Erosion Phenomena in Almaj Depression, Caras - Severin County*, Scientific Bulletin of the "Politehnica" University of Timișoara, Transactions on Hydrotechnics, Tom 50(64), No. 1, 2005, ISSN 1224-6042, pp. 154-157

71. Gabriela Balla G., Balica S., - *Sediment transport in a hydrographic basin*, Scientific Bulletin of the "Politehnica" University of Timișoara, Transactions on Hydrotechnics, Tom 50(64), No. 1, 2005, ISSN 1224-6042, pp. 42-53

CONFERENCE PAPERS

1. David, I., Anim-Addo, S.B., *Conceptual real-time multiphase flow modeling for complex NAPL remediation systems*, Scherer, R.J.; Katranuschkov, P.; Schapke, S.E. (Hrsg.): 22nd Conference on Information Technology in Construction (W78), CIB Publication No. 304, Dresden, Germany, 2005, ISBN 3-86005-478-3, pp. 417-424
2. Anim-Addo, S., David, I., *Estimating hydro geological Parameters for Groundwater modelling in contaminated areas*, Proceedings of the 5th International Conference on Calibration and Reliability in Groundwater Modelling From Uncertainty to Decision Making (ModelCARE 2005), Scheveningen, The Netherlands, 2005, pp. 250-256
3. Mirel, I., Florescu, C., Bătea, F., *Considerations regarding water drillings rigging and exploitation*, Installations for Constructions and Ambiental Comfort, XIVth edition, Timisoara, 2005, pp. 36-43
4. Girbaci, A., Achim, C., Girbaci, C., *Direct treatment methods for deferrization of underground water using wells*, Scientific and Technical Conference for Young Professionals „Innovations in the Field of Water Supply, Sanitation and Water Quality Management”, Bucharest, Romania, 2005, pp. 60-66
5. Achim, C., Girbaci, A., *Consideration regarding the modeling of the superficial flow and infiltration hydrograph with the purpose of decrease and lead them in underground layer on the small basins*, Scientific and Technical Conference for Young Professionals „Innovations in the Field of Water Supply, Sanitation and Water Quality Management”, Bucharest, Romania, 2005, pp. 285-291
6. Barabás, K., *Wastewater sludge exploitation in sanitary deposits*, Scientific and Technical Conference for Young Professionals „Innovations in the Field of Water Supply, Sanitation and Water Quality Management”, Bucharest, Romania, 2005, pp. 392-396
7. Cretu, Gh., Bojin, T., Nagy, C., Madar, M., *Economical analysis model catchment's area*, 6th International Conference on Sharing a common vision of our water resources, EWRA, Menton, France, 2005, pp. 62-63
8. Cretu, Gh., Mocanu, F., Balica, St., Pepa, A., Riti, A., *Regarding the water floods occurred in April–May 2005 in the Banat Hydrographic Area*, International Conference, Iasi, Romania, 2005
9. Beilicci, E., Rosu, C., Girbaci, C., Beilicci, R., *Study of the water flood propagation in case of extraordinary accidents at dams*, Water Day 2005, Timisoara, 2005, pp. 90-95
10. Man, T.E., Blenesi-Dima, A., Nastea, I., Blagoescu, C., Bedreag, V., *April-May 2005 flood impact on hidrotechnical works of Timiș County*, International Conference “Disaster and Pollution Monitoring” - Second Edition, Technical University “Gh. Asachi” Iasi, 17-19 November, Ed. Performantica, ISBN 973-730-124-2, 2005, pp. 71-82

PhD THESIS

1. Beilicci, R.F., *Pollutants propagation modeling in aquifers with conditions generated by wells and drainages*, PhD supervisor: Prof. dr.eng. David, I.
2. Turcan, R.O.C., *Mathematical methods to simulate to impact of the arrangements and pollution sources on groundwater flow regime. Case study in Bihor Country area*, PhD supervisor: Prof.dr.eng. David, I.
3. Zang, M., *A Multi-Object Singularity Method for Potential Problems in heterogeneous Continuum Media*, Technical University Darmstadt, Germany, PhD supervisor: Prof.dr. eng. David, I.
4. Florescu, C., *Contributions to the drinking water purification by using multilayer rapid filters*, PhD supervisor: Prof.dr.eng. Mirel, I.
5. Mancea, M., *Waste disposal sites*, PhD supervisor: Prof.dr.eng. Wehry, A.

PhD STUDENTS

- Scientific Supervisor: prof.dr.eng. Ioan David, field: *Hydraulics and Fluid Mechanics*
- Pisleaga, M., *The optimization of the retention basins for the sewerage systems*
- Crisan, M., *Environmental Monitoring System*
- Busan, A., *The environmental impact of the hydraulic structures on rivers*
- Chebutiu, A., *Rehabilitation strategies of the industrial estate and their environmental impact*
- Ghitescu, A., *Mesh less methods for hydraulic structures*
- Achim, C., *Modeling methods for surface runoff attenuation by artificial infiltration on small basin*

Garbaciuc, A., *The study and modeling of the ground water deferization by in-situ methods*

Anim-Ado, S., *Multiphase flow modeling for complex NAPL remediation systems*, Technical University Darmstadt, Germany

➤ Scientific Supervisor: Prof.dr.eng. Gheorghe Cretu, field: *Water Management*

Riti, A., *Water developments impact upon the ecosystems in mining areas*

Podaru, C.A., *Water management quality models on a river*

Mocanu, F., *Ecohydrology modeling of some aquatic systems*

➤ Scientific Supervisor: Prof.dr.eng. Gheorghe Popa, field: *Hydraulic Structures*

Matei, F., *The stress state in an arch dam by the finite elements method*

Maries, C., *Underground water flow around a low head retention structure*

Riiosu, J., *High waters management*

➤ Scientific Supervisor: Prof.dr.eng. Eugen Man, field: *Land Reclamation*

Pasca, M., *Irrigation-drainage interaction and its impact upon Crisurilor river basin*

Nedelcu, D.R., *Hydroameliorative works impact on the transfrontalier water quality from the hydrographic area of Banat*

Blenesi, D.A., *Optimal techniques and methods of geosintetical materials use in land improvement arrangements*

Lauer, I., *Economical technologies of maintenance and exploitation of drainage arrangements*

Campan, G., *Irrigation schemes using the mobile irrigation and sprinkling equipment*

Suiugan, M., *Using of GIS in the water management from the hydrographic basin of Bihor county*

Tolnai, S., *Sustainable rural development strategies in Bihor county*

Popescu, A.F., *The impact of rural development program on sustainable development*

Pavel, C., *Rehabilitation and modernization solutions of irrigation system Crivina-Vânju Mare*

Pasca, G.V., *The integrated management of water resource. Case study: Hydrographic basin of Someș*

Tentis, M., *Hazards and risks in Bihor hydrographic basin*

Halbac Cotoara, R., *Efficient drainage systems for humidity excess lands*

Gabor, A., *The retehnologization of irrigation system Șagu-Fântânele-Arad*

Ruset, D.O., *The integrated management of land improvement works, of natural resources, of human resources and water resources from the micro region of a hydrographic basin*

➤ Scientific Supervisor: Prof.dr.eng. Gheorghe Rogobete, field: *Land Reclamation*

Pascovici, I., *The impact of lignite exploitation from Husnicioara-Mehedinți basin and the ecological reconstruction possibilities of their natural habitat*

Ghetu, M., *Solutions for the rehabilitation of the terrain polluted with radioactive substances and heavy metals from Banat*

Covaci, C., *The impact of the forest administration from Caraș-Severin County over the forester soils*

Grozav, A., *Phenomena of the water and soil pollution-the study of a section from hydrographic basin of the river Bârzava*

Beutura, S., *Contribution of the study of regosols and erodosols from Caraș-Severin county*

Timbata, O., *Agropedoamelioratives measures of the ecological reconstruction of some acid soils from Timiș county*

Nemes, N., *Phenomena of retention and mobility of phosphorus inside the soils waters of the hydrographic basin of Bistra-Caraș-Severin*

Tudor, V., *Phenomena of nitrates pollution of soils from the Down Plain of the river Bârzava*

Costescu, I., *Integrated management of the quality of soils and surfaces water in the hydrographic basin of river Bega*

➤ Scientific Supervisor: Prof.dr.eng. Ioan Mirel, field: *Sanitary Engineering*

Blaj, A., *The management of waste disposal sites in Hunedoara county*

Mitrasca, D., *Geothermal waters treatment*

Sabau E., *Sewerage sistems models*

Barabas, K., *Technologies for sludge treatment*

➤ Scientific Supervisor: Prof.dr.eng. C. Jura, field: *Sanitary Engineering*

Staniloiu Theis, M.C.M., *The optimization of the waste water treatment processes at small size plants*

Capotescu, V.M.C., *Management of the sewerage system in Timisoara*

Podoleanu, C.C.E., *Optimization of waste water treatment plant.*

Paian, S., *Water purrification plant for surface water*

- Scientific Supervisor: Prof.dr.eng. A. Wehry, field: *Land Reclamation*

PERSPECTIVES

- updating the European trends in water engineering and applying them to Romanian realities
- ensuring technical assistance for the design groups and companies in order to provide water supply projects for small communities
- a complete inventory of the companies located in the Romanian west side of the country regarding research demands and in this way to set up new research projects

- enlarging the international cooperation in the field of water engineering researches
- further co-operation between our research center and other research centers from Iasi, Bucharest and Constanta Universities in the field of the groundwater management and its protection against pollution

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Figure 1 Dam river on Mures River at Mintia



Figure 2 Dam River Isalnita on Jiu River