



Dr. Zoltán András Vattai

associate professor

BME Department of Construction Technology & Management

Data Sheet

Cabinet

K. II. 17. No 6.

Telephon

(+36-1) 463-4106; (+36-1) 463-1464

Fax

(+36-1) 463-3554

E-mail

zvattai@ekt.bme.hu

Tutored subjects

| | |
|---------------|---|
| [BMEEPEKSZ14] | Építéskivitelezés-Tervezés (co-lecturer) |
| [BMEEPEKSZ15] | Építéskivitelezés-Vállalkozás (tutor-lecturer) |
| [BMEEPEK-SR2] | Mérnöki nagylétesítmények megvalósítása (tutor-lecturer) |
| [BMEEPEK-SR6] | Építés-gazdasági vizsgálatok (tutor-lecturer) |
| [BMEEPEKDIPL] | Diplomatervezés (tutor-lecturer, supervisor) |
| [BMEEPEK5008] | Számítógépes termelésirányítás (tutor-lecturer) |
| [BMEEPEK4153] | Mérnök-gazdasági vizsgálatok (tutor-lecturer) |
| [BMETKEPEB02] | Construction Management – Estimates (tutor-lecturer) |
| [BMETKEPEB03] | Construction Management – Decision Support (tutor-lecturer) |
| [BMETKEPEM01] | Management of Engineering Projects (tutor-lecturer) |

Administrative commissions

Department's referee of education affairs (on Faculty of Civil Engineering)

Department's referee of diploma works (on Faculty of Civil Engineering)



Dr. Zoltán András Vattai

associate professor

Department of Construction Technology & Management (DCT&M)

Budapest University of Technology and Economics (BME)

Curriculum Vitae

Date of birth

26.03.1962, Budapest

Marital status

married, 2 children (Bálint 1987, Alina 1989)

Certificates

dipl. civil engineer (hydraulics, water engineering), BME, 1986

dipl. engineer-economist in construction economics, BME, 1992

dr.univ., BME, 1993

Candidate of Science (Ph.D), construction sciences, MTA (Hungarian Academy of Sciences), 1999

Spoken languages

English, intermediate („C”), 1986

Russian, base („A”), 1987

Professional Career

1986-1989 MTA-TMB (-Scientific Accreditations’ Committee) scholar, BME DCT&M

1989-1994 professor’s assistant, BME DCT&M

1994-1999 assistant professor, BME DCT&M

1999- associate professor, BME DCT&M

1999-2008 vice head of department, BME DCT&M

Education experiences

Construction Management – Estimates: resource-, time- and site layout planning (in English and in Hungarian);

Construction Management – Contracting: pricing, budgeting, procurement systems, engineering economics, network techniques (in English and in Hungarian);

Managing Civil Engineering Projects: on-site management, legal- and economic environment (in English and in Hungarian);

Engineering Economics (in Hungarian);

Construction Economics Analyses (in Hungarian);

Computer Aided Production Management in Construction Industry (in Hungarian);

Diploma works (Construction Management), tutor/supervisor (in Hungarian);

Further collaborating as lecturer at casual external courses in domains of above (in Hungarian)

Fields of interest

OR/MS – scheduling problems, network problems

Construction – time estimates, scheduling

Construction – technologies, resource estimates, equipments

Professional and public activities

Fellow of Hungarian Academy of Sciences (Section of Engineering Sciences), 1999-

Head of Engineers' Team (lecturers educating on Faculty of Civil Engineering) of Department, vice head of Department, BME DCT&M, 1999-2008

Member of State Examination Board, Branch of Construction Management (within Branch of Structures' Engineering), Faculty of Civil Engineering, BME, 1999-

Consultant-representative of Faculty of Architecture in Council of Faculty of Civil Engineering, BME, 1999-2008

Member of State Examination Board, Courses in English, Faculty of Architecture, BME, 2001-

Member of Advisory Board, Foundation for Construction Accomplishment Industry, 2002-

A VIK-VCB-ÉVOSZ-BME Flemish-Hungarian Course „Master in Construction Management”, course leader, 2004

Member of Hungarian Chamber of Engineers (reg.: 01-12932), 2009-

Building Completion-, Construction Technologies, Designer, 2009-

Building Completion-, Construction Technologies, Expert Specialist, 2009-

Scholarships

MTA-TMB Scholarship, Research field: „Applying micro-computers at dynamic operative production management in Construction Industry”; Tutors: G. Jándy, D. Holnapy, I. Ijjas, E. Klafszky; Research Institute: BME DCT&M, 1986-1989

International experiences, study tours

IAESTE 6 weeks technical experiences, Iller Bankesi, Antalya, Turkey, august-september 1985;

Building Maintenance – Architectural Reconstruction – Historic Building Survey, 4 weeks study tour, Moscow-Tallin-St.Petersburg, june-july 1988 (BME);

Civil utilization of Szentkirályszabadja Military Airport (Hungary), 3 days preliminary study tour, Bursa, Turkey, september 1998 (AiRapid Ltd.);

Civil utilization of Szentkirályszabadja Military Airport (Hungary), 6 days preliminary study tour, Mont-Real, Canada, march 1999 (AiRapid Ltd.);

EU-Hungarian Standards' Harmonization in Construction Industry, 6 days preliminary study tour, Helsinki University, Finland, january-february 2000 (BME);

Dry construction – Ready-made houses, 3 days study tour, Stayerland, Austria, april 2005 (BME);

Construction Management – Flemish Experiences, as part of Flemish-Hungarian course „Master in Construction Management”, 5 days study tour, Brussels, Belgium, april-may 2005 (BME);

Research co-operations

MÁV (Hungarian Railways Company Corp.) - BME, Time-, cost- and resource planning of railway reconstruction works to be performed in traffic-free periods, R+D software system development, 1989-1993;

Budapest, Szentmihályi str., Asia Center, Construction Phase-II, Scheduling concrete-works of a large-scale waterproof monolithic foundation slab, R+D software development, aiding preliminary project planning, UVATERV Corp., 2002;

Developing knowledge-based document-specification and cost-estimating system for to assist preliminary planning and performance of construction projects, R&D (Co. L. Neszvényi), Kutatás-fejlesztési Pályázati és Kutatáshasznosítási Iroda - Hörsik CAD Consultants Ltd. - BME-Innotech Ltd., 2006-2007

Professional co-operations and projects

Time and cost estimates of Budapest - Hegyeshalom railway reconstruction works, feasibility study, time- and cost estimate revisions (Co. J. Monori, L. Neszmélyi), BME-Innotech Ltd. - MÁV-BHPI, 1993–1997;

Time- and cost estimates of railway reconstruction projects of high preferences, preliminary project planning (Co. J. Monori, L. Neszmélyi), BME-Innotech Ltd. - MÁV-FBF, 1997–1998;

Civil utilization of Szentkirályszabadja Military Airport (Hungary), feasibility study, preliminary investment planning and consultation (as staff-member of experts of BME), BME - AiRapid Ltd., 1997–1998;

Scheduling works of Hungarian – Slovian railway link construction, preliminary project planning, controlling-monitoring (Co. J. Monori, L. Neszmélyi), BME-Innotech Ltd. – MÁV KBPI, 1998-2000;

Miskolc, Csanyikvölgy, Ampul and Syringe Manufacturing Plant reconstruction, preliminary project planning and consultation, (Co. J. Monori, L. Neszmélyi), BME-Innotech Ltd. - CHINOIN Corp., 1998–1999;

Nagyatád, 48-apartmanned blockhouse construction, quality- and cost account disputes, forensic engineering (Co. J. Monori, L. Neszmélyi), BME-IMSZB (Committee of Forensic Engineering) – City Court of Marcali, 1999;

ELTE (Eötvös Lóránd University of Sciences), South Block, scheduling construction works, consultation and co-operation (Co. L. Neszmélyi), BME-Innotech Ltd. – Magyar Építő Corp., 2000;

Budapest, Asia Center, construction phase-1, scheduling structural and finishing works, preliminary project planning and consultation, (Co. L. Neszmélyi) STRABAG Ltd. 48. Dir., 2001-2002;

Miskolc, Szinva Center, shopping- and amusement center construction, delay and performance disputes, expertise (Co. L. Neszmélyi, S. Sántori), Raiffeisen Bank Corp., 2002;

Széchenyi Plan II Plus – (highway) main-road system development projects, monitoring, expertise, (as staff-member of experts of BME), Óbuda-Újlak Corp., 2002;

Budapest, Szentmihályi str., Asia Center, construction phase-2, site-layout design, preliminary project planning (Co. L. Neszmélyi) STRABAG Ltd. 48. Dir., 2002;

Budapest, Arany J. str. 10, Youth- and Culture Center construction, delay and performance disputes, expertise (Co. J. Gyulay, L. Neszmélyi), BLIBER – KIPSZER Corp. 2002-2003;

Budapest, City Archives, New Building (Teve str.), scheduling construction works, preliminary project planning and consultation (Co. L. Neszmélyi) KÖZÉPÜLETÉPÍTŐ Corp., 2003;

Construction of a thermal-, amusement- and recreation center and spa, Esztergom, Prímás island, preliminary project planning, expertise and consultation (Co. J. Poles, S. Sántori), Local Authority of Esztergom, 2003;

Scheduling railway reconstruction projects of high preferences (Zalalövő – Zalaegerszeg), preliminary project planning (Co. L. Neszmélyi), BME-Innotech Ltd. – RailConsult Ltd., 2004;

Budapest, „Deák Palace” construction, delay and performance disputes, expertise (Co. L. Neszmélyi, S. Sántori), IMMOBILIA – Real-Estate Development Corp., 2004-2005;

Scheduling reconstruction works of Győr Railway Station, preliminary project planning (Co. L. Neszmélyi), BME-Innotech Ltd. – RailConsult Ltd., 2004-2005;

Budapest, Logodi str. 44. blockhouse construction, quality- and account disputes, forensic engineering (Co. L. Neszmélyi), IMSZB (College of Economics, City Court of Budapest), 2005;

Budapest VIII. Distr. Corvin Alley Project Phase I. master schedule development, preliminary project planning (Co. L. Neszmélyi, J. Poles), Corvin Corp. - PJ Bau Ltd., 2006;

Budapest XIII. Distr. Narancsliget Housing Park, C and D buildings, master schedule development, preliminary project planning (Co. L. Neszmélyi), WESTCLIFF Ltd., 2007;

Avenue Gardens Budapest, delivery disputes, consultancy and expertise (Co. L. Neszmélyi), Izabella 62-64 Ltd., 2008;

Elementary school reconstruction, Budapest XIII. Pannónia str., master schedule, preliminary project planning, Magyar Építő Corp., 2008
Hungarian Scientific Institute of Neurosurgery, reconstruction, Budapest XIV. Amerikai str. 57., master schedule, preliminary project planning, Magyar Építő Corp., 2009
Károly Róbert Polytechnics, Gyöngyös – Atkár Tass-puszta buildings renewal and reconstruction, master schedule, preliminary project planning, Magyar Építő Corp., 2009
Conference- and Music Center, Pécs, Construction Risks Analysis, preliminary project planning (Co. L. Mályusz), Magyar Építő Corp., 2009
Győr, Széchenyi István University, extension & partial reconstruction, master schedule, preliminary project planning, Magyar Építő Corp., 2009
Budapest, Corvin Alley Project, Atrium building, delay disputes, expertise and consultation (Co. J. Poles), PEDRANO-FR Ltd., 2009
Újlipótváros Community Center, Budapest, master schedule, preliminary project planning, Magyar Építő Corp., 2009

Publications

Books, Chapters

[1] Real Estate Appraisal Handbook, Chapter 8-11, Kossuth Publishing, Budapest, 1994, translation from English, The Appraisal Of Real Estate Tenth Edition, 1992 Appraisal Institute, Illinois, USA
[2] Project Management, Chapters 2,6, BME DUETS Office, Budapest, 1996, translation from English, Project Management, 1995 The Open University, Faculty of Mathematics & Computing, UK
[3] Construction Supervisors' Handbook, Chapter IV/7, "Estimating times and monitoring progression of processes of construction projects" (in Hungarian) pp. 176-186, Terc Ltd., 2001

Dissertations, Theses

[4] „Applying Branch & Bound techniques for scheduling (sequencing) problems in Construction Industry”, dr. univ. theses (in Hungarian), 1993
[5] „Applying combinatorical models in construction management” C.Sc. (Ph.D.) theses (in Hungarian), 1999

Articles Published in English in Hungarian Periodicals

[6] ”Sequencing of Tasks with Identical Work Processes for Achieving The Shortest Possible Time of Realization”, (Co. Tamás Török), PERIODICA POLYTECHNICA, ARCHITECTURE Vol 32. Nos. 3-4, PP. 195-207 (1988), Budapest
[7] ”A Descriptive Proof for Johnson’s Algorithm for Solving Two-machine Flow-Shop Problem”, PERIODICA POLYTECHNICA SER. CIVIL ENG. VOL. 37, NO 3, PP. 249-260 (1993), Budapest

Articles Published in English in Proceedings of International Conferences

[8] ”Scheduling Construction Of A Large-Scale Water-Proof Reinforced Concrete Foundation Slab”, International Conference On Technology And Management In Construction, Moscenicka Draga, Croatia, 2003
[9] ”Monitoring Progression In Construction - A Case Study At Slovain-Hungarian Railway Line Construction”, (Co. L. Neszmélyi), International Conference On Technology And Management In Construction, Moscenicka Draga, Croatia, 2003
[10] ”Floyd-Warshall Again”, 7th International Conference On Organization, Technology And Management In Construction, Zadar, Croatia, 2006

[11] "Laying Siege To F//C^{max} Flow-Shop Problem – Is 'Random' The Likely Winner?", 8th International Conference On Organization, Technology And Management In Construction, Umag, Croatia, 2008

Articles Published in Hungarian in Hungarian Periodicals

[12] "An algorithm for to solve F2/overlap/C^{max} problem", Alkalmazott Matematikai Lapok (Papers of Applied Mathematics) 17, PP. 241-257 (1993), Budapest

[13] "Gaming – seriously, Planning construction of a large-scale water-proof reinforced concrete foundation slab", Magyar Építőipar (Hungarian Construction), vol. 2003 1-2, pp. 5-9, ÉTE, 2003

Articles Published in Hungarian in Proceedings of Hungarian Conferences

[14] "FITT – Planning time-restricted technologies to be performed in traffic-free periods", Conference „Construction Technology – Construction Management”, Section CAM: Computer applications in science of and in practice of construction, Subotica, Yugoslavia, 1997

[15] "Network techniques - an integrated review", International Conference „Construction Industry – Construction Management 2000”, Budapest, Hungary, 2000

Electronic Publications

[16] Norman Polmar, „THE POLARIS: A REVOLUTIONARY MISSILE SYSTEM AND CONCEPT”, translation from English, 2005,

<http://www.ekt.bme.hu/Nagylete/PERTOlvasmanyok01.pdf>

[17] „Harvey M. Sapolsky, THE POLARIS SYSTEM DEVELOPMENT”, Management Book Review, translation from English, 2006,

<http://www.ekt.bme.hu/Nagylete/PERTOlvasmanyok02.pdf>

[18] Craig B. Smith, P.E. „Program Management B.C.”, translation from English, 2006,

<http://www.ekt.bme.hu/Nagylete/ProgramMenedzsmentIE.pdf>

[19] Jonathan Shaw, „Who Built The Pyramids?”, translation from English, 2008,

<http://www.ekt.bme.hu/Nagylete/KikEpitettekAPiramisokat.pdf>

Unprinted (oral only) Presentations – not referable publications

[20] „Applications of graph-technics, all-pairs informations”, oral presentation, 23rd Hungarian Conference on Operations Research, Pécs, Hungary, 20-22 october 1997

[21] „Time estimates in construction management, scheduling in construction practice”, oral presentation, MTE SZ College of Construction Management, Budapest, 1999

[22] „Preparing students of civil engineering and students of architecture for cooperation in process of construction – Increasing expectation against construction management”, invited presentation, ÉTE Scheduled session of Construction Forum (Co. J. Gyulay), Budapest, 2002

[23] „Of Present and Future of Educating Civil Engineers and Architects – in mirror of two-cycled higher education system”, invited presentation, ÉTE Outdoor session, (Co. J. Gyulay, R. Klujber), Budapest, November 2006

Furthers – not referable publications

[24] Revising (vetting) translation of technical issues: „Guide of best practices on the co-ordination of health and safety in the construction sector”, EFMEP-ÉVOSZ, 2005

[25] Revising (vetting) translation of technical issues: „Ultimate Construction – Mega Machines”, National Geographic Channel - Hungary, 2005

[26] Revising (vetting) translation of technical issues: „Ultimate Construction III. part 13/6: – Pipe Dreams”, National Geographic Channel - Hungary, 2005