

# 70th Anniversary Conference of the Civil Engineering Faculty from Technical University of Cluj-Napoca

08-11 NOVEMBER 2023, CLUJ-NAPOCA, ROMANIA



**C70 & FACULTY OF CE DAYS PROGRAM**

# Wednesday, 8 November 2023

08:00 **Registration**  
09:00 (Venue: 25 G. Barițiu Str., **Room 129**)

09:00 **Opening ceremony of the Civil Engineering Faculty Days**  
11:00 Chaired by **Prof. Daniela MANEA** - Dean of the Civil Engineering Faculty  
(Venue: 25 G. Barițiu Str., **Aula Terteza**)

- Brief History. Excellence Awards Ceremony.
- Officials of the Civil Engineering Faculty
- Officials of the Rectorate and Senate of the Technical University of Cluj-Napoca

11:00 **Coffee break, Opening of the Technical Exhibition**  
11:30

11:30 **Keynote lecture:** Legislative changes in construction and  
12:00 associations of employers in the sector

Speaker: **Cristian Erbașu**

(President of the Federation of Employers Associations of Construction Companies)

Chaired by **Prof. Daniela MANEA** - Dean of Civil Engineering Faculty  
(Venue: 25 G. Barițiu Str., **Aula Terteza**)

12:00 **Panel Session:** Education and Entrepreneurship in Civil Engineering  
13:00 Chaired by **Prof. Daniela MANEA** - Dean of Civil Engineering Faculty  
(Venue: 25 G. Barițiu Str., **Aula Terteza**)

13:00 **Lunch break**  
14:00

14:00 **Workshop** - Chaired by **Prof. Ioan ASCHILEAN** & **Dr. Ligia MOGA**  
18:00 (Venue: 25 G. Barițiu Str., **Amphitheatre All**)

## **Research groups Centre for Technological Development and Innovation in Civil Engineering and Building Services (RTDI - Civ&BsE) and Physics and Protection of Buildings (RCPPB)**

14:00 Technical presentation: **Dr. Ligia MOGA** (UTCN) – “Advancing Building  
14:30 Energy Efficiency and Sustainability: The Multifaceted Pursuits of RCPPB. THERMOG Project Presentation

14:30 Technical presentation: **Horațiu BAȘA** (TESTO) – “Energy efficient  
15:00 buildings with the help of professional measuring instruments”

15:00 Technical presentation: **Dr. Ioana MOLDOVAN** & **Dr. Silivan MOLDOVAN**  
15:30 (UTCN) – “The European Culture and Technology Laboratory (ECT Lab+), the first ERI in EU+. Activities and Projects”

15:30 **Coffee break, Technical exhibition**  
16:00

16:00 Technical presentation: **Prof. Ioan AȘCHILEAN** (UTCN) & **Dinu POPESCU**  
16:30 (ARIC) - "Presentation of the Romanian Association of Consulting Engineers-ARIC"

16:30 Technical presentation: **Emilian TRAIȘTA** (ARIC) - "Construction  
17:00 contracts management"

17:00 Technical presentation: **Dr. Vasile IACOB** (ARIC) - "Introduction to BIM"  
17:30

17:30 Conclusions  
18:00



# Wednesday, 8 November 2023

14:00 **Workshop**

18:00 Chaired by **Prof. Cristina CÂMPIAN & Dr. Attila PUSKAS**  
(Venue: 25 G. Barițiu Str., **Aula Terteia**)

## Research Group Smart Structures and Materials for Buildings (SSMB)

14:00 Technical presentation: **Dr. Cătălin MOGA** (UTCN) – "Blaj Polyvalent Hall -  
14:25 Design of the metal roof structure"

14:25 Technical presentation: **Dr. Mihai ȘENILĂ** (UTCN) – "Recent research on  
14:50 the explosion safety of metal building facades"

14:50 Technical presentation: **Dr. Ioan PETRAN** (UTCN) – "Structural  
15:10 conception and design based on failure mechanism control of multi-span  
structures subjected to accidental actions"

15:10 Technical presentation: **Adrian GHENCEA & Alexandru MORARU**  
15:30 (ALLBIMNET) "SAF files as a tool for processing computational models.  
Steel structures from analytical models to execution details" - online

## 15:30 **Coffee break, Technical exhibition**

16:00

16:00 Technical presentation: **Dr. Zsolt NAGY** (UTCN) – "Contributions of the  
16:20 Civil Engineering Faculty to the new Eurocode EN 1993-1-3/2003"

16:20 Technical presentation: **Prof. Dan Paul GEORGESCU** (UTCB) & **Dr. Gábor**  
16:40 **- Álmos SÂNDOR** (UTCN) – "New stipulations and rules for the design of  
concrete structures in accordance with FprEN 1992-1-1:2023 (E)  
Implications and impact."

16:40 Technical presentation: **Jácint VIRÁG & Dr. Attila PUSKAS** (UTCN) –  
17:00 "Apparent concrete - current applications"

17:00 Technical presentation: **Ioana Pisău** (DOKA) - "Doka and new  
17:15 technologies - The contribution of Doka innovations to the construction  
industry"

17:15 Technical presentation: **Dr. Bogdan HEGHEȘ** (UTCN) – "The use of  
17:45 numerical modelling in research"

17:45 Conclusions  
18:00

19:00  
23:00

## **C70 Welcome Reception and Social Event of the Civil Engineering Faculty Alumni**

Venue: Fabrica de Bere (Beer Factory), 2 Mănăștur Street, Cluj-Napoca



# Thursday, 9 November 2023

08:00 **Registration**  
09:00 (Venue: 25 G. Barițiu Str., **Room 129**)

09:00 **Workshop**  
13:00 Chaired by **Prof. Cristina CÂMPIAN & Dr. Attila PUSKAS**  
(Venue: 25 G. Barițiu Str., **Amphitheatre All**)

## Research Group Smart Structures and Materials for Buildings (SSMB)

09:00 Technical presentation: **Dr. József SZALAI** (CONSTEEL) – "Consteel, the  
09:45 basis of a unique solution for the design of steel structures  
(Introductory presentation)"

09:45 Technical presentation: **Bálint VASZILIEVITS-SÖMJÉN** (CONSTEEL) –  
10:30 "Design of halls with hot-rolled, welded and cold-formed profiles"

10:30 **Coffee break, Technical exhibition**  
11:00

11:00 Technical presentation: **Ádám KIS** (UTCN, CONSTEEL) – "Visual  
12:00 programming techniques with Grasshopper"

12:00 Technical presentation: **Zoltán PLOSZ** (CONSTEEL&IDEASTATICA) –  
12:30 "Consteel and IDEA StatiCa - workflow in steel structure design"

12:30 Conclusions  
13:00

09:00 **Workshop**  
13:00 Chaired by **Dr. Mihai NEDELCU, Dr. Mircea BOTEZ & Dr. Marius BURU**  
(Venue: 25 G. Barițiu Str., **Aula Terteia**)

## Research Group Computational Modelling and Advanced Simulation in Structural and Geotechnical Engineering

09:00 Technical presentation: **Drd. Lajos IMRE** (UTCN) – "Special problems in  
09:30 the fire analysis of steel-concrete composite sections"

09:30 Technical presentation: **Dr. Mihai NEDELCU** (UTCN) – "Behavior of  
10:00 connections between precast reinforced concrete elements. A  
successful partnership UTCN - Consolis"

10:00 Technical presentation: **Dr. Ovidiu PRODAN** (EXPERT PROIECT/CSI  
10:30 STRUCTURAL SOFTWARE) – "Increasing the level of knowledge for the  
assessment of existing structures by non-destructive testing methods"

10:30 **Coffee break, Technical exhibition**  
11:00

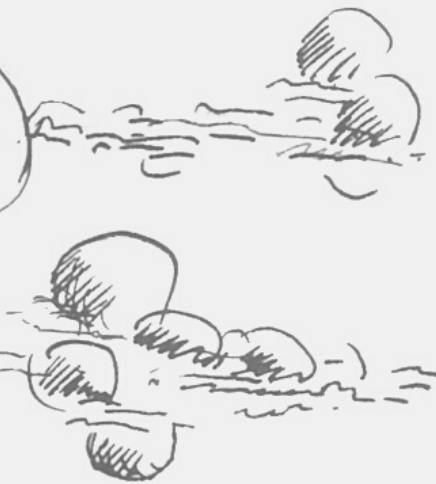
11:00 Technical presentation: **Dr. Marius BOTOȘ** (UTCN) – "Numerical  
11:45 approaches in the assessment of indoor radon concentration"

11:45 Technical presentation: **Dr. Marius BURU** (UTCN) – "Analysis of steel-  
12:15 concrete mixed section beams - analytical approach"

12:15 Technical presentation: **Lorand SZEKELY** (EXPERT PROIECT) –  
12:45 Revolutionizing Structural Design - Pioneering Elements in Structural  
Design"

12:45 Conclusions  
13:00

13:00 **Lunch break**  
14:00



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08:45  
13:00

**Workshop** - Chaired by **Dr. Vasile FARCAȘ**  
(Venue: 25 G. Barițiu Str., **Amphitheatre CII**)

**Research Group Smart Structures and Materials for Buildings (SSMB)**  
Organised in partnership with the **Romanian Society of Geotechnics and Foundations (SRGF)**

- 08:45 Technical presentation: **Prof. Augustin POPA** (UTCN) – "Introduction"  
09:00
- 09:00 Technical presentation: **Prof. Loretta BATALI** (UTCB) – "Evolution and  
09:15 perspectives in technical regulations in Geotechnical Engineering in  
Romania and Europe"
- 09:15 Technical presentation: **Dr. Iulia PRODAN** (UTCN) – "From soil to - sky is  
09:30 the limit: The role of Geotechnical Engineering in addressing and solving  
today's societal challenges"
- 09:30 Technical presentation: **Monika URA & Kamil WIŚNIEWSKI** (MENARD) –  
09:45 "Soil improvement as an alternative" (in English)
- 09:45 Technical presentation: **Lóránd SATA** (SOLETANCHE BACHY) – Evolution  
10:00 of Landscapes: Geotechnical Engineering Yesterday and Tomorrow "
- 10:00 Technical presentation: **Radu MOȘTEANU** (CARMEUSE) - Soil stabilisation  
10:15 with Viacalco - lime-based binders. A sustainable solution with low CO2  
impact"
- 10:15 Technical presentation: **Adrian GHENCEA & Monica AMUZA** (ALLBIM  
10:30 NET) – "Geotechnical databases provided by GIS Connector tools" -  
online

10:30  
11:00

**Coffee break, Technical exhibition**

- 11:00 Technical presentation: **Dr. Ioan BOTI** (UTCB) – "Evolution of field  
11:15 investigations in geotechnical engineering"
- 11:15 Technical presentation: **Dr. Ernest OLINIC** (UTCB) – "Laboratory tests  
11:30 have been, are and will be central to the geotechnical investigation"
- 11:30 Technical presentation: **Dr. Vasile CHIOREAN** (UTCN) – "Computational  
11:45 methods in geotechnical engineering. Evolution and trends"
- 11:45 Technical presentation: **Prof. Irina LUNGU** (UT Ghe. Asachi Iași) –  
12:00 "Promoting Geotechnical Engineering Education in Romania: perspectives,  
challenges and strategic approaches"
- 12:00 Technical presentation: **Prof. Adrian CIUTINĂ** (UPT) – "Skills and  
12:15 qualifications in geotechnical engineering - the key to connect education  
to the labour market"
- 12:15 Technical presentation: **Dr. Nicoleta ILIEȘ** (UTCN) – "Geotechnical  
12:30 engineering through the prism of AI-generated images"
- 12:30 Technical presentation: **Prof. Gabriel OLTEAN** (UTCN) - "Artificial  
12:45 intelligence"
- 12:45 Conclusions  
13:00

09:00  
13:00

**GIS Day 2023, 5th Edition**

Chaired by **Dr. Sanda NAȘ & Prof. Ioel Samuel VEREȘ**  
(Venue: 25 G. Barițiu Str., **Amphitheatre BII**)

- 09:00 Technical presentation: **Dr. Sanda NAȘ** (UTCN) – "Introduction"  
09:15
- 09:15 Technical presentation: **Prof. Ioel Samuel VEREȘ** (UTCN) – "Geodesy -  
09:45 Achievements and Perspectives"
- 09:45 Technical presentation: **Eneia BODEA** (TOPGEOCART)– "New Leica  
10:30 Geosystems technologies in the context of scanning heritage buildings"

10:30  
11:00

**Coffee break, Technical exhibition**

- 11:00 Technical presentation: **Ionuț UNGURIANU** (GAUSS)– "Geospatial  
11:25 technologies: from classic to modern"
- 11:25 Technical presentation: **Daniela MORCOV** – "3D digital reconstruction of  
12:00 buildings for BoQ - Doljchim case study"
- 12:00 Technical presentation: **Dr. Adrian RĂDULESCU & Dr. Mihai RĂDULESCU**  
12:30 (UTCN) – "Modern techniques for monitoring landslide areas"
- 12:30 Conclusions  
13:00

University - Cluj

**Thursday, 9 November 2023**

09:00 **Workshop** - Chaired by **Prof. Daniela Lucia MANEA**  
13:00 (Venue: 25 G. Barițiu Str., **Room 166**)

**Building Materials Research Group (BURG)**

09:00 Technical presentation: **Prof. Daniela Manea** - "History of Building  
09:30 Materials Discipline"

09:30 Technical presentation: **Dr. Adrian-Victor LĂZĂRESCU** (INCERC) –  
10:00 "Innovative sustainable solutions favourable to the implementation of  
emerging technologies with cross-cutting impact on local industries and  
the environment and facilitating technology transfer through the  
development of advanced, eco-smart composite materials in the context  
of sustainable development of the built environment"

10:00 Technical presentation: **Sebastian IVAN** (XELLA) - "Xella - research,  
10:30 development and innovation"

10:30 **Coffee break, Technical exhibition**  
11:00

11:00 Technical presentation: **Dr. Luminița PLEȘA** (UTCN) – "Research on the  
11:25 use of waste in construction materials"

11:25 Technical presentation: **Dr. Yvette ORBAN** (SYNERGY CONSTRUCT) –  
11:50 "Special works in construction"

11:50 Technical presentation: **Sorin LEȚIU** (EURAS) – "Rehabilitation works -  
12:20 historical monuments"

12:20 Technical presentation: **Prof. Radu FECHETE** (UTCN) – "Modern  
12:50 Applications of Nuclear Magnetic Resonance for Characterization of  
Building Materials"

12:50 Conclusions  
13:00

09:00 Workshop  
13:00 Chaired by **Dr. Mihai L. DRAGOMIR, Dr. Ștefan I. GUȚIU & Dr. Rodica CADAR**  
(Venue: 25 G. Barițiu Str., **Room 185**)

**Transport Systems Research Group (TSRG)**

09:00 Technical presentation: **Dr. Mihai L. DRAGOMIR** (UTCN) – "Use of waste-  
09:15 like additions in infrastructure works for a cleaner environment and  
resource saving"

09:15 Technical presentation: **Georgiana GHERMAN** (STRABAG) – "The  
09:30 understanding of longitudinal cracks: causes and implications in road  
structures"

09:30 Technical presentation: **Dr. Mircea SUCIU** (UTCN) – "Waterproofing  
10:00 solutions for bridges"

10:30 Technical presentation: **Emil RADU** (DIFERIT) – "Different - quality in  
10:30 execution. Road and Bridge Works"

10:30 **Coffee break, Technical exhibition**  
11:00

11:00 Technical presentation: **Dr. Mirela Ilinca BECA** (UTCN) & **A. LUCHIAN** –  
11:30 "Sensor networks for air quality monitoring in Cluj-Napoca municipality"

11:30 Technical presentation: **Ing. Silviu TEGZESIU** (CADSIL) – "TR35- Cluj-  
12:00 Napoca Metropolitan Beltway"

12:00 Technical presentation: **Ing. Rareș SIMEDREA** (SIKA) – "Torcret  
12:30 preliminary tests of Sighișoara Tunnel"

12:30 Conclusions  
13:00

13:00 **Lunch break**  
14:00

# Thursday, 9 November 2023

14:00 **Keynote lectures** - Chaired by **Dr. Gavril HODA**  
15:30 (Venue: 25 G. Barițiu Str., **Aula Tertia**)

14:00 Presentation: **Nicolae GÎVAN** (AMICII BUILDING) – "Amicii Building" - a  
14:30 success story about family, humanity, friendship and competence"

14:30 Presentation: **Andrei CRISTEA** (CONA) – "The first hospital in Romania  
15:00 on prefabricated structure"

15:00 Presentation: **Cătălin ANDREI** (STRABAG) – "BIM in STRABAG Romania  
15:30 projects"

15:30 **Coffee break, Technical exhibition**  
16:00

16:00 Presentation: **Beneamin RUS & Marius DEJESCU** (SELINA GRUP) –  
16:30 "Your future at Selina Group"

16:30 Presentation: **Dr. Ovidiu PRODAN** (UTCN) – "SDC - Seismic Design  
17:00 Competition"

17:00 Presentation: **Dr. Cristian MOJOLIC, Dr. Zsongor GOBESZ & Dr. Marius  
17:30 BURU** (UTCN) – "Pasta Bridge Competition"

19:30 **C70 Conference Dinner**  
23:00

Venue: Grand Hotel Italia, 2 Trifoiului Street, Cluj-Napoca



# Friday, 10th November 2023

09:00 **Registration**

10:00 (Venue: 25 G. Barițiu Str., **Room 129**)

10:00 **C70 Conference Opening Ceremony**

11:15 Chaired by Prof. **Daniela MANEA** - Dean Faculty of Civil Engineering  
(Venue: 25 G. Barițiu Str., **Aula Terteza**)

- Officials of the Rectorate and Senate of the Technical University of Cluj-Napoca
- Officials of the faculties in the country, local officials

11:15 **Coffee break, Technical exhibition**

11:35

11:35 **Session I** - Chaired by **Dr. Nicoleta ILIEȘ**

13:30 (Venue: 25 G. Barițiu Str., **Aula Terteza**)

11:35 Presentation: **Prof. Ioan POP** (UTCN) - "History and present in construction"  
12:05

12:05 Presentation: **Acad. Prof. Dan DUBINĂ** (UPT, DHC UTCN) - Seismic  
12:30 resilience of multi-storey buildings with high-strength steel  
components"

12:30 Presentation: **Prof. Zoltan KISS** (UTCN) - "The role of Civil Engineering  
12:50 School in the development of reinforced concrete structures"

12:50 Presentation: **Dorel PECIU-FLORIANU** (ACI) - " ACI Cluj S.A. company  
13:10 presentation and the works completed"

13:10 Presentation: **Laurențiu PLOSCEANU** (ARACO President) - "Risks and  
13:30 challenges for the construction sector at local and national level"

13:30 **Lunch break**

14:30

14:30 **Session II** - Chaired by **Dr. Nicoleta COBÎRZAN**

16:00 (Venue: 25 G. Barițiu Str., **Aula Terteza**)

14:30 Presentation: **Prof. Augustin POPA** (UTCN) - "Interaction of buildings  
14:50 (with cultural value) with the ground"

14:50 Presentation: **Alexandru ȚIGĂNESCU** (INCDFP) - "Thematic Services in  
15:05 Earth Physics towards an enhanced understanding of natural hazards"

15:05 Presentation: **Dr. Zsolt NAGY** (GORDIAS) - "20 years of Gordias activity"  
15:25

15:25 Presentation: **Péter VIRÁG** (KESZ) - "Partnership between education and  
15:45 execution. From solid foundations to tall structures"

15:45 Presentation: **Dr. Lavinia BUTA** (MDPI) - "Publishing "Open Access" in  
16:00 MDPI journals"

16:00 **Closing Ceremony of the C70 Conference**

16:15 Chaired by **Prof. Daniela MANEA** - Dean of the Civil Engineering Faculty  
(Venue: 25 G. Barițiu Str., **Aula Terteza**)

16:15 **Technical Visit** - The restoration and rehabilitation works of the  
17:30 Church of Saint Michael Cluj-Napoca

Guided tour by **Eng. Bela SAROSI** (Kesz) and **Dr. Zsolt NAGY**  
(Gordias)

