

## RESEARCH CENTRE FOR ENVIRONMENTAL ENGINEERING

### Contact details

Name	<b>Research Centre For Environmental Engineering</b>	
Acronym	<b>IngMed</b>	
Logo		
Site	<a href="http://www.imadd.utcluj.ro">www.imadd.utcluj.ro</a>	
Address	103 – 105, Muncii Blvd., 400641, Cluj-Napoca, Romania	
Faculty Department	<b>Faculty of Materials and Environmental Engineering Environmental Engineering and Sustainable Development Entrepreneurship Department</b>	
Telephone	+40 264 401624	
Fax	+40 264 415054	
Director	Assoc. Prof. Viorel Dan, PhD. Eng.	
e-mail	<a href="mailto:Dan.Viorel@imadd.utcluj.ro">Dan.Viorel@imadd.utcluj.ro</a>	

### Areas of expertise

clean technologies, waste recovery, recycling materials, ecological reconstruction, sustainable development, new materials, sustainable energy, structural modelling, risk assessment, impact studies, monitoring systems

### Team

**Assoc. Prof. Dr. Eng. Viorel Dan**, Prof. Dr. Eng. Tiberiu Rusu, Prof. Dr. Eng. Valer Micle, Assoc., Assoc. Prof. Dr. Eng. Ovidiu Nemeş, Assoc. Prof. Dr. Eng. Emil Rîți-Mihoc, Assist. Prof. Dr. Eng. Marius Crişan, Assist. Prof. Dr. Eng. Dan Porcar, Assist. Prof. Dr. Eng. Ioana Deneş-Pop, Assist. Prof. Dr. Eng. Cristina Horju-Deac, Assist. Prof. Dr. Eng. Simona Avram, Assist. Prof. Dr. Eng. Timea Gabor, Assist. Prof. Dr. Eng. Bianca Soporan, Assist. Prof. Dr. Eng. Andrei Rusu, Assist. Prof. Dr. Eng. Anuța Tiuc

### Representative projects

**“Network of Excellence HighTech Europe”**, (2009-2013)  
**“Biomedical application of metal compounds – Metallomics”**, PCCE, (2010-2013)  
**Center for Molecular Modeling and Quantic Computational Chemistry**, Capacities Project, (2007-2009)  
**“Innovative technology for contaminated soils remediation by metallurgical specific activities”**, PNCDI II, (2008-2011)  
**“Regeneration system for recycling organic waste chemically bonded moulding sand in the foundry industry”**, CEEX, (2006-2008)  
**“Technologies for metals and plastics recovery from waste and telecommunications equipment”**, CEEX, (2005-2007)  
**“Advanced optimization methods of bonded joints in metal, composite and mixed materials”**, PNII-ID, (2007-2010)  
**“Modelling and optimization of the cylindrical bonded joints”**, CEEX, (2006-2009)  
**“Technology to reuse waste from the manufacture of bathtubs and GRP products”**, Industry Research Project, (2013)  
**“Design of an Equipment to recycle used PET bottles”**, Industry Research Project, (2014)

### Significant results

#### The most representative publications of the past 5 years:

1. A.E. Tiuc, O. Nemeş, I. Perhaița, H. Vermeşan, T. Gabor, V. Dan, Thermal behaviour of polyurethane matrix composite materials, Studia Universitatis Babeş-Bolyai Chemia Issue 2 , pp. 169-176, 2015

2. M.B. Soporan, O. Nemeş, Quantitative analysis of the noncompliant landfill constituents, *Studia Universitatis Babes-Bolyai Chemia Issue 2* , pp. 201-206, 2015
3. S.-A. Radu, V.D. Leordean, N. Bâlc, O. Nemeş, Resin type influence on moulded parts final dimensions, *Studia Universitatis Babes-Bolyai Chemia Issue 2* , pp. 219-228,
4. J.D. Chelaru, L.M. Muresan, V.F. Soporan, O. Nemes, L. Barbu-Tudoran, Investigation of a naturally patinated bronze artifact originating from the outdoor statuary group of Mathias Rex, *Journal of Cultural Heritage Volume: 15, Issue: 5, 2014*, pp: 546-549
5. C. V. Prodan, V. Micle, G. C. Rogozan, M. Szanto (Prodan), Mathematical modeling of thermal desorption using linear regression analysis, in *Environmental Engineering and Management Journal*, vol.12, no. 2, 2013, pp.365-369
6. A.E. Tiuc, T. Rusu, S. Ionescu, O. Nemeş, Determination of the sound absorption properties of some new composite materials obtained from wastes, in *Romanian Journal of Materials*, vol. 42, no. 4, 2012, pp. 405-414
7. M. B. Soporan, V. F. Soporan, E. A. Cociş, G. Bătrînescu, O. Nemeş, Gas analysis of municipal landfill emissions, in *Studia Universitatis Babes-Bolyai Chemia*, vol. 57, no. 3, 2012, pp. 23-30
8. M. Berar (Sur), V. Micle, S. Avram, M. Şenilă, V. Oros, Bioremediation of some heavy metals from polluted soils, in *Environmental Engineering and Management Journal*, vol.11, no. 8, 2012, pp.1389-1393
9. E. Sabău, N. Bâlc, P. Bere, O. Nemeş, New materials from waste glass fiber, in *Studia Universitatis Babes-Bolyai Chemia*, vol. 57, no. 4, 2012, pp. 201-208
10. P. Bere, P. Berce, O. Nemeş, Phenomenological fracture model for biaxial fiber reinforced composites, in *Composites Part B: Engineering*, vol. 43, no. 5, 2012, pp. 2236-2243
11. O. Nemeş, A. M. Chipper, A. R. Rus, O. Tataru, B. M. Soporan, P. Bere, Adhesive fracture in double-lap adhesive assemblies, in *Studia Universitatis Babes-Bolyai Chemia*, vol. 56, no. 4, 2011, pp. 249-254

#### Significant solutions:

New technologies for waste recycling; New technologies for soil remediation; New and improved solution for water treatment

#### Products and technologies:

1. New materials from multi-layer packages, wood saw dust and vegetal wastes
2. New technologies for soil remediation
3. New technologies for water treatment

#### Patents:

1. **RO128093** - Method for obtaining composite reinforced polymeric plates. Authors: Bere Paul, Berce Petru, Nemeş Ovidiu, Bâlc Nicolae.
2. **RO129228** – Sound absorbent composite material and obtaining process. Authors: Ancuţa Tiuc, Tiberiu Rusu, Ovidiu Nemeş

#### The offer addressed to the economic environment

Research & development	Research in development of new methods and technologies of soil remediation Research and development of new methods and technologies of water treatment Research in environmental risk assessments Research in waste recycling and new materials manufacturing
Consulting	Consulting in soil remediation Consulting in water treatment technologies Consulting in waste management and recycling technologies Consulting in risk assessments
Training	Training courses in waste management Training courses in recycling technologies Training courses in soil remediation technologies Training courses in water treatment