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Department of Technical Mechanics,
Faculty of Civil Engineering,
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EDUCATION

Technical University of Liberec, Czech Republic
Ph.D. in Materials Science, 2008-2012

Nha Trang University, Nha Trang, Vietnam
B.A. in Manufacturing Engineering, 1999-2004

RESEARCH INTERESTS

- Geopolymer composite, mortar and concrete.
- Plasma technology.
- Commercial fibers.
- Researching the solutions to apply the advanced methods in waste processing.
- Influences of high temperature and environment on mechanical properties of concrete and composite.

RESEARCH EXPERIENCE

- The potential applications of geopolymer materials in waste processing (Ph.D thesis)
- Education of the European Social Fund (ESF) – Operational Program VaVpI under the project “Center for nano materials, advanced technology and innovation”, CZ.1.05/2.1.00/01.0005.
- Project “Innovation Research in Material Engineering” of PhD student Grant TUL.
- Project FT-TA4/068 and Project MSMT 4674788501.

TEACHING RESPONSIBILITY

Undergraduate

- Descriptive Geometry and Engineering Drawing
- Building Materials
- Engineering Materials
- Engineering Drawing by computer

Graduate

- CE503-New Engineering materials

PUBLICATIONS and PRESENTATIONS

Books:

1. Tran Doan Hung, Petr Louda, Dora Kroisová, Oleg Bortnovsky, **Nguyen Thang Xiem**. 2011. New Generation of Geopolymer Composite for Fire-Resistance, Advances in Composite Materials – Analysis of Natural and Man-made Materials, Editor Pavla Tesinova, pp. 73 – 92. InTech Publisher.

Journals:

1. **Nguyen Thang Xiem**. 2013. Potential applications of adding fly ash based geopolymer mortar and concrete. Journal of Fisheries Science and Technology, volume 01.
2. **Xiem Nguyen Thang**, et al., 2012. The influence of modified fly ash particles by heating on the compressive strength of geopolymer mortar. Journal of Chemické listy, volume 106.
3. **Xiem Nguyen Thang**, et al., 2012. Effects of commercial fibers reinforced on the mechanical properties of geopolymer mortar. Journal of Chemické listy, volume 106.
4. **Xiem Nguyen Thang**, et al., 2013. Thermophysical properties of woven fabrics reinforced geopolymer composites. World Journal of Engineering, volume 10 (2).
5. **Xiem Nguyen Thang**, et al., 2010. Microstructure and Flexural Properties of Geopolymer Matrix-Fiber Reinforced Composite with Additives of alumina (Al_2O_3) Nanofibres. World Journal of Engineering, volume 7.
6. **Xiem Nguyen Thang**, et al., 2010. Moisture and Chemical Resistant of Geopolymer Composites. World Journal of Engineering, volume 7.
7. **N. T. Xiem**, et al., 2009. Effects of temperature and plasma treatment on mechanical properties of ceramic fibres. Journal of Achievements in Materials and Manufacturing Engineering, JAMME. Volume: 37/2.

Presentations

1. **Xiem Nguyen Thang**, et al., 2013. Thermophysical properties of woven fabrics reinforced geopolymer composites. The 18th International conference STRUTEX 2011, ISBN-978-80-7372-786-4, Czech Republic(CD version).
2. Vijay Baheti, **Xiem Nguyen Thang**, Jiri Militky, Petr Louda. 2011. Influence of wet milling of fly ash on compression strength of geopolymer mortar cured at room temperature. The 18th International conference STRUTEX 2011, ISBN-978-80-7372-786-4, Czech Republic (CD version).
3. **Xiem Nguyen Thang**, et al., 2011. The influence of modified fly ash particles by heating on the compressive strength of geopolymer mortar. The 8th International Conference LMP 2011, ISBN: 978-80-244-2889-5, Oloumoc - Czech Republic.

4. **Xiem Nguyen Thang**, et al., 2011. Effects of commercial fibers reinforced on the mechanical properties of geopolymer mortar. The 8th International Conference LMP 2011, ISBN: 978-80-244-2889-5, Oloumoc - Czech Republic.
5. Linh Trinh Thi, Dora Kroisova, Petr Louda, **Nguyen Thang Xiem**, Pavel Kejzlar. 2011. Compressive strength of fly ash based geopolymer adding nanofiber. The Workshop pro doktorandy FS a FT TUL 2011, ISBN: 978-80-7372-765-9, Czech Republic.
6. **N. T. Xiem**, et al., 2011. Možnosti průmyslového využití geopolymerních materiálů v konstrukce”, The Workshop pro doktorandy FS a FT TUL 2011, pp. 288 -293, ISBN: 978-80-7372-765-9, Czech Republic.
7. **N. T. Xiem**, et al., 2011. Effect of curing on the mechanical properties of geopolymer mortar incorporating different fly ash content. The IXth International Conference Preparation of Ceramic Materials, ISBN: 978-80-553-0678-0, Slovakia.
8. **N. T. Xiem**, et al., 2011. Effects of high temperature on the mechanical properties of fly ash and stone powder based geopolymer materials. The 18th International Students’ Day of Metallurgy, ISBN: 978-3-200-02155-6, Austria.
9. **Xiem Nguyen Thang**, et al., 2010. Influence of chemical reagent on flexural properties of geopolymer composites. The 9th Workshop on Polymer Processing, Publishing licence No: 215-2010/CXB/146.1-17/KHKT, Hanoi – Vietnam.
10. **Xiem Nguyen Thang**, et al., 2010. Microstructure and Flexural Properties of Geopolymer Matrix-Fiber Reinforced Composite with Additives of alumina (Al₂O₃) Nanofibres. The 7th Textile science International Conference (TEXSCI), ISBN: 978-80-7372-635-5 (CD version), Liberec - Czech Republic, 2010.
11. **Xiem Nguyen Thang**, et al., 2010. Moisture and Chemical Resistant of Geopolymer Composites. The 7th Textile science International Conference (TEXSCI), ISBN: 978-80-7372-635-5 (CD version), Liberec - Czech Republic.
12. **N. T. Xiem**, et al., 2010. Influence of Plasma Treatment on the Flexural Properties of Geopolymer Composites. The 2nd RMUTP International Conference: Green Technology and Productivity, In press, Bangkok - Thailand.
13. **Xiem Nguyen Thang**, et al., 2009. Effects of plasma treatment on mechanical properties of commercial fibers based on Geopolymer matrix composites. The 16th International Conference Strutex structure and structural mechanics of textiles, ISBN: 978-80-7372-542-6 (CD version), Liberec - Czech Republic.
14. Hung Tran Doan, Dora Kroisová, Petr Louda, **Xiem Nguyen Thang**, Oleg Bortnovsky, Petr Bezucha. 2009. Effect of temperature of curing on flexural properties of thermal silica based geopolymer-carbon fiber as reinforcement. The 4th International Conference on Vacuum and Plasma Surface Engineering (VaPSE 2009), ISBN 978-80-7372-524-2 (CD version), Liberec - Czech Republic.
15. **Xiem Nguyen Thang**, et al., 2009. Effects of temperature and plasma treatment on mechanical properties of ceramic fibers. The 4th International Conference on Vacuum and Plasma Surface Engineering (VaPSE 2009), ISBN 978-80-7372-524-2, Liberec - Czech Republic.

16. Hung, T. D., Kroisová, D., Bortnovsky, O., Louda, P., and **Xiem, N. T.** 2008. Primary abilities of thermal sustainment of composites based on geopolymer matrices. The 3rd International Conference on Vacuum and Plasma Surface Engineering (VaPSE 2008), ISBN 978-80-7372-398-9. Liberec – Czech Republic.

Czech Republic patents

1. Petr Louda, Dora Kroisová, Tran Doan Hung, **Thang Xiem Nguyen.** 2011. High strength geopolymer composites. Publish No: 2011-24194, Czech Republic.
2. Petr Louda, Dora Kroisová, Tran Doan Hung, **Thang Xiem Nguyen.** 2011. High strength geopolymer composites. Publish No: 2011-24195, Czech Republic.
3. Petr Louda, Dora Kroisová, Tran Doan Hung, **Thang Xiem Nguyen.** 2011. High strength geopolymer composites. Publish No: 2011-24196, Czech Republic.
4. Petr Louda, Dora Kroisová, Tran Doan Hung, **Thang Xiem Nguyen.** 2011. High strength geopolymer composites. Publish No: 2011-24197, Czech Republic.
5. Petr Louda, Dora Kroisová, Tran Doan Hung, **Thang Xiem Nguyen.** 2011. High strength geopolymer composites. Publish No: 2011-24198, Czech Republic.