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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**

1. Geopolymer composite, mortar, concrete and block brick;
2. Plasma technology;
3. Commercial fibers;
4. Researching the solutions to apply the advanced methods in waste processing.
5. Influences of high temperature and environment on mechanical properties of concrete and composite.

## **TEACHING RESPONSIBILITY**

### **Undergraduate**

1. Descriptive Geometry and Engineering Drawing
2. Building Materials
3. Engineering Materials
4. Engineering Drawing by computer

### **Graduate**

1. New materials in Engineering

## 2. Mechanics of Composite Materials

### **PUBLICATIONS AND PRESENTATIONS**

#### **Books:**

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. **Xiem Nguyen Thang**, “Influences of High Temperatures and Environmental Conditions on Mechanical Properties of Geopolymer Mortar based on Fly Ash”, *International Journal of Engineering Research and Technology*, volume 5, issue 01, 2016.
2. **Xiem Nguyen Thang**, “Influence of Curing and Water to the Mechanical Properties of Geopolymer Mortar” *International Journal of Engineering Research and Technology*, volume 5, issue 02, 2016.
3. **Nguyen Thang Xiem**, Tran Doan Hung, “Initial research on ability to reuse nix grain waste”, *Journal of Fisheries Science and Technology*, issue 1, 2016.
4. **Nguyen Thang Xiem**, Tran Doan Hung, “The flexural properties of geopolymer composites reinforced woven fabrics after exposure to different temperatures”, *Journal of Vietnam Mechanical Engineering*, issue 1+2, 2015.
5. **Nguyen Thang Xiem**, Potential applications of adding fly ash based geopolymer mortar and concrete, *Journal of Fisheries Science and Technology*, issue 1, 2013.
6. **Xiem Nguyen Thang**, et al., “The influence of modified fly ash particles by heating on the compressive strength of geopolymer mortar”, *Journal of Chemiské listy*, volume 106, 2012.
7. **Xiem Nguyen Thang**, et al., “Effects of commercial fibers reinforced on the mechincal properties of geopolymer mortar”, *Journal of Chemiské listy*, volume 106, 2012.
8. **Xiem Nguyen Thang**, et al., “Thermophysical properties of woven fabrics reinforced geopolymer composites“, *World Journal of Engineering*, volume 10 (2), 2013.
9. **Xiem Nguyen Thang**, et al., “Microstructure and Flexural Properties of Geopolymer Matrix-Fiber Reinforced Composite with Additives of alumina ( $\text{Al}_2\text{O}_3$ ) Nanofibres”, *World Journal of Engineering*, volume 7, 2010.
10. **Xiem Nguyen Thang**, et al., “Moisture and Chemical Resistant of Geopolymer Composites”, *World Journal of Engineering*, volume 7, 2010.

11. **N. T. Xiem**, et al., “Effects of temperature and plasma treatment on mechanical properties of ceramic fibres”. Journal of Achievements in Materials and Manufacturing Engineering, JAMME. Volume: 37/2, 2009.

### **Presentations**

1. **Xiem Nguyen Thang**, “Initial Studies on The mechanical Properties of Geopolymer Mortar after Additive Stone Powder Treatment”, Canada-Japan-Vietnam Workshop on Composites, 2016.
2. **Xiem Nguyen Thang**, “Optimizing the percentage of fly ash in geopolymer mortar and concrete”, 2<sup>nd</sup> Vietnam–Korea polymer materials symposium, 2016.
3. **Xiem Nguyen Thang**, et al., “Thermophysical properties of woven fabrics reinforced geopolymer composites“, 18<sup>th</sup> International conference STRUTEX 2011, ISBN-978-80-7372-786-4, Czech Republic(CD version), 2011.
4. Vijay Baheti, **Xiem Nguyen Thang**, Jiri Militky, Petr Louda, “Influence of wet milling of fly ash on compression strength of geopolymer mortar cured at room temperature”, 18<sup>th</sup> International conference STRUTEX 2011, ISBN-978-80-7372-786-4, Czech Republic (CD version), 2011.
5. **Xiem Nguyen Thang**, et al., “The influence of modified fly ash particles by heating on the compressive strength of geopolymer mortar”, 8<sup>th</sup> International Conference LMP 2011, ISBN: 978-80-244-2889-5, Oloumoc - Czech Republic, 2011.
6. **Xiem Nguyen Thang**, et al., “Effects of commercial fibers reinforced on the mechanical properties of geopolymer mortar”, 8<sup>th</sup> International Conference LMP 2011, ISBN: 978-80-244-2889-5, Oloumoc - Czech Republic, 2011.
7. Linh Trinh Thi, Dora Kroisova, Petr Louda, **Nguyen Thang Xiem**, Pavel Kejzlar, “Compressive strength of fly ash based geopolymer adding nanofiber”, Workshop pro doktorandy FS a FT TUL 2011, ISBN: 978-80-7372-765-9, Czech Republic, 2011.
8. **N. T. Xiem**, et al., “Možnosti průmyslového využití geopolymerních materiálů v konstrukce”, Workshop pro doktorandy FS a FT TUL 2011, pp. 288 -293, ISBN: 978-80-7372-765-9, Czech Republic, 2011.
9. **N. T. Xiem**, et al., “Effect of curing on the mechanical properties of geopolymer mortar incorporating different fly ash content”, IX<sup>th</sup> International Conference Preparation of Ceramic Materials, ISBN: 978-80-553-0678-0, Slovakia, 2011.
10. **N. T. Xiem**, et al., “Effects of high temperature on the mechanical properties of fly ash and stone powder based geopolymer materials”, 18<sup>th</sup> International Students’ Day of Metallurgy, ISBN: 978-3-200-02155-6, Austria, 2011.
11. **Xiem Nguyen Thang**, et al., “Influence of chemical reagent on flexural properties of geopolymer composites”, the 9<sup>th</sup> Workshop on Polymer Processing, Publishing licence No: 215-2010/CXB/146.1-17/KHKT, Hanoi – Vietnam, 2010.
12. **Xiem Nguyen Thang**, et al., “Microstructure and Flexural Properties of Geopolymer Matrix-Fiber Reinforced Composite with Additives of alumina

- (Al<sub>2</sub>O<sub>3</sub>) Nanofibres”, 7<sup>th</sup> Textile science International Conference (TEXSCI), ISBN: 978-80-7372-635-5 (CD version), Liberec - Czech Republic, 2010.
13. **Xiem Nguyen Thang**, et al., “Moisture and Chemical Resistant of Geopolymer Composites” 7<sup>th</sup> Textile science International Conference (TEXSCI), ISBN: 978-80-7372-635-5 (CD version), Liberec - Czech Republic, 2010.
  14. **N. T. Xiem**, et al., “Influence of Plasma Treatment on the Flexural Properties of Geopolymer Composites”, 2<sup>nd</sup> RMUTP International Conference: Green Technology and Productivity, In press, Bangkok - Thailand, 2010.
  15. **Xiem Nguyen Thang**, et al., “Effects of plasma treatment on mechanical properties of commercial fibers based on Geopolymer matrix composites”, 16<sup>th</sup> International Conference Strutex structure and structural mechanics of textiles, ISBN: 978-80-7372-542-6 (CD version), Liberec - Czech Republic, 2009.
  16. Hung Tran Doan, Dora Kroisová, Petr Louda, **Xiem Nguyen Thang**, Oleg Bortnovsky, Petr Bezucha: "Effect of temperature of curing on flexural properties of thermal silica based geopolymer-carbon fiber as reinforcement. 4<sup>th</sup> International Conference on Vacuum and Plasma Surface Engineering (VaPSE 2009), ISBN 978-80-7372-524-2 (CD version), Liberec - Czech Republic, 2009.
  17. **Xiem Nguyen Thang**, et al., "Effects of temperature and plasma treatment on mechanical properties of ceramic fibers". 4<sup>th</sup> International Conference on Vacuum and Plasma Surface Engineering (VaPSE 2009), ISBN 978-80-7372-524-2, Liberec - Czech Republic, 2009.
  18. Hung, T. D., Kroisová, D., Bortnovsky, O., Louda, P., and **Xiem, N. T**, “Primary abilities of thermal sustainment of composites based on geopolymer matrices”, 3<sup>rd</sup> International Conference on Vacuum and Plasma Surface Engineering (VaPSE 2008), ISBN 978-80-7372-398-9. Liberec – Czech Republic, 2008

#### **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.
6. Louda, P., Jersák, J., and **Nguyen, T.X.** 2011. Superfínišovací nástroj. Publish No: 2011-25376, Czech Republic.