RESUME

KAY WILLE, Ph.D.

A. PROFESSIONAL PREPARATION

University of Michigan	Cementitious Materials & Structural Engineering	Postdoc.	2008 – 2010
University of Leipzig, Germany	Civil Engineering	Ph.D.	2008
University of Leipzig, Germany	Civil Engineering	Diploma	2002

B. APPOINTMENTS

08/2016 – Present	Associate Professor	Dept. of Civil & Env. Eng., University of Connecticut
08/2010 – 08/2016	Assistant Professor	Dept. of Civil & Env. Eng., University of Connecticut
04/2008 – 08/2010	Postdoctoral Researcher	Dept. of Civil & Env. Eng., University of Michigan
05/2002 – 03/2008	Graduate Research and Teaching Assistant	Dept. of Civil Eng. and Building Materials, University of Leipzig, Germany
09/1998 – 04/2002	Research Assistant	Dept. of Statics & Dynamics, University of Leipzig, Germany

C. PRODUCTS

(i) Five products of highest citation

1. Wille, K., El-Tawil, S., Naaman, A.E. "*Properties of strain hardening ultra high performance fiber reinforced concrete (UHP-FRC) under direct tensile loading",* Cement and Concrete Composites, Vol. 48, 2014. Cited by 601 as of 11/09/2022.
2. Wille, K., Naaman, A.E., Parra-Montesinos, G.J. "*Ultra-High Performance Concrete with Compressive Strength Exceeding 150 MPa (22 ksi): A Simpler Way*", ACI Materials journal, Vol. 108, 2011. Cited by 590 as of 11/09/2022.
3. Wille, K., Kim, D.J., Naaman, A.E. "*Strain-hardening UHP-FRC with low fiber contents*", Materials and structures, Vol. 44, 2011. Cited by 394 as of 11/09/2022.
4. Wille, K., Naaman, A.E., El-Tawil, S., Parra-Montesinos, G.J. "*Ultra-high performance concrete and fiber reinforced concrete: achieving strength and ductility without heat treatment*," Materials and Structures, published online Aug. 27th 2011, in Journal Vol. 45, No. 3, 2012, pp. 309 – 324. Cited by 344 as of 11/09/2022.
5. Wille, K., Naaman, A.E., "*Pullout Behavior of High-Strength Steel Fibers Embedded in Ultra-High-Performance Concrete,*" ACI Materials Journal, Vol. 109, No. 4, July – August 2012, pp. 479 – 488. Cited by 237 as of 11/09/2022.

(ii) Current number of products

Peer reviewed journal publications: 46,	Full paper review conference proceedings: 32
Books: 1,	Patents: 1,
Citations: 4756,	h-index:32, h10-index 52

D. SYNERGISTIC ACTIVITIES

Teaching

- Civil Engineering Materials, Design of Reinforced Concrete Structures, Advanced Reinforced Concrete Structures, Prestressed Concrete Structures, Applied Mechanics I – Statics, Mechanics of Materials

Research Activities

- Risk Management of Pyrrhotite-Induced Concrete Deterioration (current – supported by NIST)
- Development of a Risk Assessment Framework for Pyrrhotite-Induced Concrete Deterioration (current – supported by NIST)

- Implementation of UHPC Technology into the New England Construction Industry (current – supported by UTC – TIDC)
- Development of High / Ultra-High Early Strength Concrete for durable Accelerated Bridge Construction (current – supported by UTC – TIDC)
- Understanding polymer adsorption kinetics and dispersion mechanisms of pozzolanic nano-sized particles in cementitious materials (supported by NSF)
- Development, Verification and Validation of a Test Method for Pyrrhotite in Concrete (supported by UConn)
- UHPC development using local available materials in Colombia (supported by CADA)
- Repair of Steel Beam/Girder Ends with UHPC Phase I and II (supported by ConnDOT)
- Impact behavior of UHP-FRC (supported by UConn)
- Bond characterization of UHP-FRC and steel reinforcement bar (supported by DHS)
- Development of non-proprietary UHPC for the Highway Bridge Sector (supported by FHWA)
- UHP-FRC Behavior under Elevated Temperature (supported by DHS)
- Material design of high energy absorbent UHP-FRC
- UHP-FRC – Influence of Fiber Orientation
- Tensile Behavior of UHP-FRC under quasi-static and dynamic loading (supported by NSF)
- Nano-Engineering Ultra-High Performance Concrete with Multi-Walled Carbon Nanotubes
- Development and implementation of smeared crack concrete model considering fractural softening in 3D

Solicitation Specific Research Areas

- Concrete Materials
- Materials development for steel and concrete
- Behavior of concrete structures

Professional Services

- Chairing ACI 239 Sub-Committee F, Sustainability of Ultra High Performance Concrete (2022 – Present)
- Guest Editor for the Journal Fibers, Associate Editor for Journal of Materials in Civil Engineering since 2022
- Organizing member of the Second and Third International Interactive Symposium on UHPC 2019, 2023
- Co-Chairing the First International Interactive Symposium on Ultra-High Performance Concrete 2016
- NSF proposal panel review (May 2015, March 2022)
- Member of ACI Committee 236D / 241, Material Science - Nanotechnology of Concrete (2014 – Present)
- Organizing and Chairing UHPC sessions at ACI Fall/Spring Conventions (2013 – present)
- Chairing UHPC sessions at Hipermat 2016, EMI 2013, Hipermat 2012, HPFRCC-6 2011
- Voting Member of ACI Committee 239, Ultra High Performance Concrete (2011 – Present)
- Voting Member of ACI Committee 544, Fiber Reinforced Concrete (2011 – Present)
- Member of ACI 544 Sub-Committee C, Testing of FRC & E, Mechanical Properties of FRC (2011 – Present)
- Member of Institute of Material Science (IMS) at UConn (2011 – Present)
- Member of American Concrete Institute (ACI) (2010 – Present)
- Chair of the CEE Space Utilization Committee at UConn (2010 - 2012)
- Advisor of the Concrete Canoe Team at UConn (2010 - Present)
- Director of Advanced Cementitious Materials & Composites Laboratory at UConn (2010 - Present)
- Reviewer for J. of Materials in Civil Engineering, Smart Structures and Systems, J. of Composites Part B, J. of Bridge Engineering, J. of Cement and Concrete Composites, J. of Construction and Building Materials, J. of Material Science, J. of Engineering Mechanics, KSCE, J. of Structural Concrete, J. of CEE
- External Reviewer for Fonds québécois de la recherche sur la nature et les technologies (FQRNT) (2010)

Honors & Awards

- C.R. Klewin, Inc. Excellence in Teaching Award (2015)
- NSF CAREER award (2015)
- Junior Faculty Summer Fellowship (2011)
- Intermediate Equipment Award at UConn for High Speed Camera System (2010)
- Faculty Large Grant Award at UConn (2010)
- Seven-week Postdoctoral Short-Course on College Teaching in Science and Engineering (2010)
- Extension of DAAD Postdoctoral scholarship for additional 7 months (2009)
- German Academic Exchange Service (DAAD) - 17 month postdoctoral scholarship (2008)
- Award for outstanding academic achievement from the University of Leipzig (2002)

Administrative positions

- Academic year 2015/2016 Director for Graduate Program of Civil Engineering