

Curriculum Vitae

Dr. Rawaa A. Al-Safy

Mustansiriyah University – College of Engineering

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PERSONAL SUMMARY:

- Skills & Expertise:

Construction materials, development of adhesives , Nanomaterials in civil engineering applications, Strengthening concrete with FRP, Concrete Technologies, Magnetized water for infrastructure applications.

EDUCATION:

- Ph.D. #1: PhD in Civil Engineering , Monash University, Melbourne, Australia 2012 (Scholarship from Iraqi Ministry of Higher Education & Scientific Research).
- M.Sc. #2: M. Sc. in Civil Engineering / Construction Materials, Mustansiriyah University, Baghdad, Iraq 2004.
- B.Sc. #3: B. Sc in Civil Engineering, Mustansiriyah University, Baghdad, Iraq.

ACADEMIC HONORS AND AWARDS:

- #1: : Publication Award provided by the Chancellor of Mustansiriyah University, Baghdad, Iraq, June 2013.
- #2: Honorary PhD holders in the 1st conference of Graduates / Scholarship Programs/ Iraqi Ministry of Higher Education and Scientific Research for the academic year 2012-2013.

ACADEMIC /TEACHING EXPERIENCE:

- #1:(Oct.2016-Oct.2017): Research Associate, Joined a research team at Swinburne University of Technology . Centre of Sustainable Infrastructure (CSI), Melbourne, Australia, to carry out a one year research titled "Utilization of Magnetic water in Cementitious Adhesive for Near Surface Mounted CFRP Strengthening System" under supervision of Prof. Riadh Al-Mahaidi.
- #2: (Feb.2013 to present): Lecturer, Materials Engineering Department, Mustansiriyah University Baghdad, Iraq.
- #3. (June 2012 to Feb. 2013): Lecturer, Civil Engineering Department, Mustansiriyah University, Baghdad, Iraq.
- #4. (July 2008 to July 2011): Tutor, 'Concrete Technology' Tutor and marker in 'Civil Engineering' Monash University, VIC 3800, Australia.
- #5. (Dec. 2007- Feb. 2008) : Student Assistant, English Language Centre, Caulfield Campus Monash University, Australia.
- #6. (March 2004 to Sep. 2007): Assistance Lecturer, Civil Engineering Department, Mustansiriyah University, Baghdad, Iraq.
- #7. (Sep. 1999 to Sep. 2001): Assistance Engineer, Civil Engineering Department and Computer and Software Engineering Department. Mustansiriyah University Baghdad-Iraq.

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أستاذة المواد

COURSES TAUGHT:

Undergraduate	Graduate
1. Concrete Technology (Civil% Materials Engineering Departments).	English Language (one semester)
2. Selection of Engineering Materials (Materials of Engineering Department)	

PROFESSIONAL AFFILIATIONS:

- Member in committee for Sustainable Development in Faculty of Engineering, Mustansiriyah University (2020-present).
- Head of a committee at Materials Engineering Department, Mustansiriyah University, Baghdad, Iraq to establish a new laboratory to develop researches in the field of Building Materials (Jan. 2018 to – 2021)
- Member in the scientific committee at Materials Engineering Department, Mustansiriyah University, Baghdad, Iraq (2018- present).
- Member of the Board in Materials Engineering Department. Mustansiriyah University, Baghdad, Iraq (2013-2018).
- Director of Research & Development Division, Faculty of Engineering, Mustansiriyah University, Baghdad, Iraq (Sept.2015-Dec. 2015).
- Member in a committee in Materials Engineering Department to establish a new branch in the department called "Building Materials and Ceramics".

PUBLICATIONS:

#Journal articles:

- (Refereed) Al-Safy, R., Al-Mahaidi, R., and Simon, G.P. "Thermal and Mechanical Characterizations of Nanomaterial-Modified Adhesive Used in Bonding CFRP to Concrete". The Journal of Adhesion 2011, Volume 87, No. (7-8): pp. 842-857.
- (Refereed) Al-Safy, Rawaa., Al-Mahaidi, Riadh., and Simon George P., and Habsuda Jana. "Experimental investigation on the thermal and mechanical properties of nanoclay-modified adhesives used for bonding CFRP to concrete substrates". Construction and Building Materials 2012; Volume 28, No 1: pp. 769-778.
- (Refereed) Al-Safy, Rawaa., Al-Mahaidi, Riadh., and Simon, George P." Investigation into thermo-mechanical properties of adhesive used for bonding CF fabrics to Concrete Members using Post-curing Technique", Composites: Part B 2012. Volume 43, No. 8, pp.2950-2959.
- (Refereed) Al-Safy, Rawaa, Al-Mahaidi, Riadh., and Simon, George P." A study of using high functionality-based resin for bond between CFRP and concrete under harsh environmental conditions", Journal of Composite Structures 2013, Vol.(95), pp:295-306.
- (Refereed) Al-Safy, Rawaa, Al-Mahaidi, Riadh., and Simon, George P., "A study of the practicality and performance of CFRP applications using post-curing at moderately elevated temperatures", Journal of Composites: Part B .2013, Vol.48, pp. 140-157.
- (Refereed) Al-Safy, R.A., Al-Mahaidi, R., Simon, G.P. and Habsuda, J. "Experimental investigation on the thermo-mechanical properties of VGCF-modified high-functionality based resin for bonding CFRP to concrete subjected to harsh environmental conditions". Journal of Advances in Structural Engineering 2014, Vol. 4, No 12, pp. 1817-1823.
- (Refereed) Al-Safy, Rawaa A. "Experimental Investigation on Properties of Cement Mortar Incorporating Eggshell Powder", Journal of Engineering and Sustainable Development 2015, Vol.19, No. 6, pp. 198-209.

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- (Refereed) Al-Safy, Rawaa., Al-Mahaidi, Riadh. and, Simon, George P. (2018). "Effect of vapour-grown carbon nanofibres on thermo-mechanical properties of high-functionality based resin used in CFRP strengthening system subjected severe service conditions". The 12th International Conference on Advanced Computational Engineering and Experimenting (ACE-X 2018), Amsterdam, The Netherlands, (Abstract Book- USB copy)

PROFESSIONAL DEVELOPMENT

- **Certification:** from Swinburne University of Technology, Australia 2017: Research Associate, Joined a research team at Swinburne University of Technology. Centre of Sustainable Infrastructure (CSI), Melbourne, Australia, to carry out a one year research titled "Utilization of Magnetic water in Cementitious Adhesive for Near Surface Mounted CFRP Strengthening System" under supervision of Prof. Riadh Al-Mahaidi.
- **Conferences:** Contributions at various International Conferences such as:
 - #1: The 12th International Conference on Advanced Computational Engineering and Experimenting (ACE-X 2018), Amsterdam, The Netherlands.
 - #2: 2nd International Conference on Buildings, Construction and Environmental Engineering (BCEE2), Beirut, Lebanon.
 - #3: 23rd Australasian Conference on the Mechanics of Structures and Materials (ACMSM23) Byron Bay, Australia M9-12 December 2014.
 - #4: 1st International conference on Mechanics of Composites (MECHCOMP2014), USA, 8-12 June 2014.
 - #5: APFIS 2013 (Asia-Pacific Conference on FRP in Structures). The 4th IIFC biennial conference for the Asia-Pacific region, Melbourne, Australia.
 - #6: 5th Civil Engineering Conference in the Asian Region and Australasian Structural Engineering Conference 2010 (CECAR 5 and ASEC 2010), Sydney, New South Wales, Australia, 09-12 August 2010.
 - #7: 4th International Conference on Advanced Computational Engineering and Experimenting (ACE-X 2010), Paris, France.
 - #8: 09 PCI Annual Convention/Exhibition & National Bridge Conference, San Antonio, TX, USA.
- **Workshops:**
 - Internationals,
 - #1: CSI Visiting Scholar: Risk, Resilience and Sustainability- Informed Decision Making for Bridges in a Life-Cycle Multi-Objectives Optimization Context, Centre for Sustainable Infrastructures (CSI), Swinburne University of Technology, Melbourne, Australia (22 Feb.2017).
 - #2 : Australian-Korea Foundation(AKF) & Centre for Sustainable Infrastructures (CSI) jointed Symposium : Virtual Design and Construction Technologies; Swinburne University of Technology, Melbourne, Australia (2nd Dec.2016)
 - #3: CSI Symposium: Innovations in Construction, Swinburne University of Technology, Melbourne, Australia (10th Dec.2013)


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 معاون العميد للشؤون العلمية


 ا.د. فالح محمد الجبوري

السيرة الذاتية

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الجامعة المستنصرية - كلية الهندسة

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ملخص تعريفي:

- اختصاص في حقل الهندسة المدنية / مواد بناء.
- خبرة أكاديمية في مواد البناء ، تكنولوجيا الخرسانة ، المواد النانوية و تطبيقاتها في الهندسة المدنية ، تقوية المنشآت الخرسانية باستخدام FRP ، تطوير مواد البناء باستخدام تقنية الماء الممغنط.

الشهادات الدراسية:

- #1: Ph.D. :دكتوراه هندسة مدنية / مواد بناء من جامعة موناخ الاسترالية 2012 (بعثة وزارة التعليم العالي العراقي و البحث العلمي).
- #2: M.Sc. :ماجستير هندسة مدنية / مواد بناء من كلية الهندسة ، الجامعة المستنصرية 2004.
- #3: B.Sc. بكالوريوس هندسة مدنية ، كلية الهندسة ، الجامعة المستنصرية.

الجوائز والتكريم الأكاديمي

- #1: جائزة يوم العلم العراقي عن النشر في مجلات عالمية رصينة ، الجهة المانحة : الجامعة المستنصرية 2013.
- #2: تكريم من وزير التعليم العالي و البحث العلمي في المؤتمر الاول لخريجي برنامج الابتعاث خارج العراق - وزارة التعليم العالي العراقي و البحث العلمي 2013.

الخبرة الأكاديمية والتدريس:

- #1: باحث مساعد في فريق بحثي استرالي في جامعة سونبيرن الاسترالية (تشرين الاول 2016- تشرين الاول 2017).
- #2: تدريسي بلقب (مدرس) في كلية الهندسة / الجامعة المستنصرية في كل من قسم هندسة المواد و قسم الهندسة المدنية للفترة من 2012 و الى الوقت الحالي.
- #3: تدريسي بلقب (مدرس مساعد) في قسم الهندسة المدنية / الجامعة المستنصرية منذ 2004.

المقررات الدراسية التي تم تدريسها:

الدراسات العليا	الدراسات الأولية
كورس واحد لغة انكليزية	1. تكنولوجيا الخرسانة (قسم الهندسة المدنية و قسم هندسة المواد) (نظري و عملي).
	2. اختيار مواد هندسية (قسم هندسة المواد) (نظري).

الانتساب المهني او الجمعيات:

- عضو في اللجنة المركزية للتنمية المستدامة في كلية الهندسة / الجامعة المستنصرية منذ 2020 و الى الوقت الحالي .
- عضو في اللجنة العلمية في قسم هندسة المواد ، الجامعة المستنصرية منذ 2018 و الى 2021
- عضو في مجلس قسم هندسة المواد ، الجامعة المستنصرية منذ 2013 و لغاية 2018.
- رئيس لجنة استحداث مختبر في قسم هندسة المواد ، الجامعة المستنصرية لتطوير بحوث مواد البناء 2018.
- عضو في لجنة استحداث فرع مواد البناء السيراميك في قسم هندسة المواد / الجامعة المستنصرية .
- مدير شعبة البحث و التطوير في كلية الهندسة ، الجامعة المستنصرية (ايلول 2015- كانون الاول 2015).
- عضو نقابة المهندسين العراقية.

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- (Refereed) Al-Safy, R., Al-Mahaidi, R., and Simon, G.P. "Thermal and Mechanical Characterizations of Nanomaterial-Modified Adhesive Used in Bonding CFRP to Concrete". The Journal of Adhesion 2011, Volume 87, No. (7-8): pp. 842-857.
- (Refereed) Al-Safy, Rawaa., Al-Mahaidi, Riadh., and Simon George P., and Habsuda Jana. "Experimental investigation on the thermal and mechanical properties of nanoclay-modified adhesives used for bonding CFRP to concrete substrates". Construction and Building Materials 2012; Volume 28, No 1: pp. 769-778.
- (Refereed) Al-Safy, Rawaa., Al-Mahaidi, Riadh., and Simon, George P. "Investigation into thermo-mechanical properties of adhesive used for bonding CF fabrics to Concrete Members using Post-curing Technique", Composites: Part B 2012. Volume 43, No. 8, pp.2950-2959.
- (Refereed) Al-Safy, Rawaa, Al-Mahaidi, Riadh., and Simon, George P. "A study of using high functionality-based resin for bond between CFRP and concrete under harsh environmental conditions", Journal of Composite Structures 2013, Vol.(95), pp:295-306.
- (Refereed) Al-Safy, Rawaa, Al-Mahaidi, Riadh., and Simon, George P., "A study of the practicality and performance of CFRP applications using post-curing at moderately elevated temperatures", Journal of Composites: Part B .2013, Vol.48, pp. 140-157.
- (Refereed) Al-Safy, R.A., Al-Mahaidi, R., Simon, G.P. and Habsuda, J. "Experimental investigation on the thermo-mechanical properties of VGCF-modified high-functionality based resin for bonding CFRP to concrete subjected to harsh environmental conditions". Journal of Advances in Structural Engineering 2014, Vol. 17 No 12, pp. 1817-1823.
- (Refereed) Al-Safy, Rawaa A. "Experimental Investigation on Properties of Cement Mortar Incorporating Eggshell Powder", Journal of Engineering and Sustainable Development 2015, Vol.19, No. 6, pp. 198-209.
- (Refereed) Al-Safy , Rawaa., Al-Mosawe, Alaa., Al-Mahaidi, Riadh., "Utilization of Magnetic water in Cementitious Adhesive for Near Surface Mounted CFRP Strengthening System", Construction and Building Materials 2019, Vol. 197, pp. 474-488.
- (Refereed) Al-Safy, Rawaa Abdulla." Myths and Reality of Implementing Three Dimensional Technology in Construction", Journal of Engineering and Sustainable Development, 2019, Vol. 23, No.5, pp.71-94.
- (Refereed) Al-Safy, R.A., Al-Mahaidi, R., Simon, G.P., Hansouda, J. " Effect of vapour-grown carbon nanofibres on thermo-mechanical properties of high-functionality based resin used in CFRP strengthening system subjected severe service conditions", January 2020, In. Öchsner A.,Alteknbach H. (eds), Engineering Design Applications II, Advanced Structural Materials, Vol. 113, Springer , Cham, pp. 117-131) (Book Chapter).
- Refereed) Al-Safy, Rawaa Abdulla. " Development of Bonding Agent used in FRP Strengthening System", Journal of Engineering and Sustainable Development, May 2020, Vol. 24, No. 3, pp. 1-28.
- Refereed) Al-Safy, Rawaa A.. " Employment of Magnetic water treatment in Construction", Journal of Engineering and Sustainable Development, July 2021, Vol. 25, No. 4, pp. 1-12.
- (Refereed) Al-Safy, Rawaa A.. " Utilization of Graphene oxide in Building Materials", Journal of Engineering and Sustainable Development, November 2021, Vol. 25, No. 6, pp. 20-31.
- (Refereed) Al-Safy, Rawaa A. " A review on bond performance of FRP-concrete system at various environmental conditions". Journal of Engineering and Sustainable Development, November 2022, Vol.26, No.6, pp.52-66.

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البحوث المنشورة في المؤتمرات العالمية:
د. صالح بن فوزان

Conferences/ Presentations

- (Refereed) Al-Safy, Rawaa., Al-Mahaidi, Riadh. and Simon, George.P. (2009). "Bond performance of CFRP strengthening of Concrete Members using Nanoclay Modified Adhesives". Proceedings of 09 PCI Annual Convention/Exhibition & National Bridge Conference, San Antonio, TX, USA.
- (Refereed) Al-Safy, Rawaa., Al-Mahaidi, Riadh. and, Simon, George P. (2010). "Thermal and Mechanical Characterization of Nanomaterials Modified Bonding Adhesive used in CFRP/Concrete system". The 4th International Conference on Advanced Computational Engineering and Experimenting (ACE-X 2010), Paris, France,(Abstract Book- CD copy).
- (Refereed) Al-Safy, Rawaa., Al-Mahaidi, Riadh. and Simon., George P. (2010). "CFRP Strengthening of Concrete Structures using Modified Adhesives". Proceedings of 'Innovative Community Building', the 5th Civil Engineering Conference in the Asian Region and Australasian Structural Engineering Conference 2010 (CECAR 5 and ASEC 2010), Sydney, New South Wales, Australia, 09-12 August 2010, (USB copy).
- (Refereed) Al-Safy, Rawaa., Al-Mahaidi, Riadh., Simon, George P. and Jana Habsuda (2013) . "Thermo-mechanical characterization of VGCF-modified adhesive for bond between CFRP and concrete subjected to combined effect of temperature and humidity". Proceedings of APFIS 2013 (Asia-Pacific Conference on FRP in Structures). The 4th IIFC biennial conference for the Asia-Pacific region, Melbourne, Australia.
- (Refereed) Al-Safy, Rawaa., Al-Mahaidi, Riadh., Simon, G.P. and Habsuda, Jana (2014). "Experimental investigation on the thermo-mechanical properties of VGCF-modified high-functionality based resin for bonding CFRP to concrete subjected to harsh environmental conditions". 1st International conference on Mechanics of Composites (MECHCOMP2014), USA, 8-12 June 2014.
- (Refereed) Al-Safy, R., Al-Mahaidi, R. and Simon, G.P. (2014). "NIR for Structural Characterization of Nanoclay-Modified Adhesive used in CFRP Applications". Proceedings of 23rd Australasian Conference on the Mechanics of Structures and Materials (ACMSM23) Byron Bay, Australia 9-12 December 2014, Vol. I, pp.169-174.
- (Refereed) Al-Safy, Rawaa A. (2015). "Effect of Incorporating Techniques on Strength of Cement-based Materials", Proceedings of 2nd International Conference on Buildings, Construction and Environmental Engineering (BCEE2), Beirut, Lebanon, 17-18th October 2015.
- (Refereed) Al-Safy, Rawaa., Al-Mahaidi, Riadh. and, Simon, George P. (2018). " Effect of vapour-grown carbon nanofibres on thermo-mechanical properties of high-functionality based resin used in CFRP strengthening system subjected severe service conditions ". The 12th International Conference on Advanced Computational Engineering and Experimenting (ACE-X 2018), Amsterdam, The Netherlands,(Abstract Book- USB copy)

تطوير المهارات:

- الحضور و المشاركة في العديد من المؤتمرات العالمية في استراليا و امريكا و اوروبا.
- حضور العديد من الندوات و ورش العمل في استراليا .
- الانضمام الى فريق بحثي استرالي في جامعة سونبيرن الاسترالية للفترة من (تشرين الاول 2016 - تشرين الاول 2017).

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