

Dr. RAJAB ABOUSNINA

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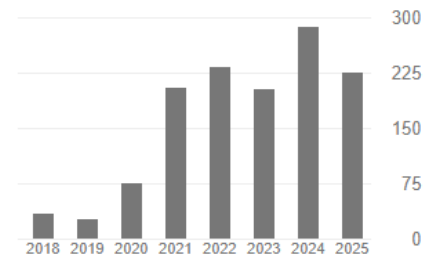
Career Objective

To contribute meaningfully as an academic professional within a forward-thinking institution by enhancing its teaching and research excellence.

I bring expertise in:

- Waste Materials
- Geopolymer Concrete
- 3D Concrete Printing
- Structural Health Monitoring
- Composite Materials
- Wastewater Treatment (Membrane Technologies)

Citations	1348	1237
h-index	21	19
i10-index	34	33



PhD in Civil Engineering | Curtin University | Civil & Environmental Engineering
| Waste-Based Materials | 3D Printing | Geopolymer Concrete | Wastewater
Treatment | Membrane Technology | Sustainable Solutions

WORK EXPERIENCE

Lecturer – Reinforced concrete design

School of Civil and Mechanical Engineering, Curtin University, Perth 6102, WA, Australia Sep.
2022 to present.

Research

- Develop sustainable Geopolymer concrete using a cheap alternative activator.

Guest Editor

- Guest Editor of a special issue in the **sustainability MDPI Journal** (IF: 3.3), titled "Sustainable Development of Advanced Composite Materials in Construction." The deadline for submission is March 25, 2025, and you can submit your paper immediately or at any time until then, as we will publish it continuously. Please follow the link to see the details of this special issue. We are pleased to receive your contributions.
- Guest Editor of a special issue in **Polymers MDPI Journal** (Q1 Journal, IF: 4.967) titled "Fibre-Reinforced Polymeric Composites". Guest Editor with Dr. Vanissorn Vimonsatit of a special issue in **Polymers MDPI Journal** (Q1 Journal, IF: 4.967) titled "Geopolymer Concrete: Processing and Application".

Training:

Laser Safety – Licensed for 3 years.

Postdoctoral Research Fellow, School of Engineering, Faculty of Science and Engineering, Macquarie
University, Sydney 2109, NSW, Australia Feb. 2021 to Sep. 2022

Research leader - Structural Health Monitoring, Project title “Embedded sensing system for continuous crack mentoring in the concrete pavement”.

Industry partner – TfNSW, Australia.

- Static tests
- Dynamic tests (fatigue and impact test).

Effect of (temperature, humidity, and PH) on the initiation of the crack, crack propagations, and the sensor’s performance.

Collaborations

- Department of Power and Desalination Plants, Ministry of Electricity and Water, Kuwait City 12010, **Kuwait.**
- Department of Manufacturing Engineering Technology, Public Authority for Applied Education and Training, Kuwait City 13092, **Kuwait.**
- Tuffchem – **Singapore.**
- Sydney Water – **Australia.**
- Sultan Qaboos University – **Oman.**
- Centre for Advanced Materials, Qatar University, Doha 2713, **Qatar.**
- University of Laghouat, **Algeria.**

Supervision

- **Amer Oun, PhD student, graduated in September 2023**

School of Engineering, Faculty of Science and Engineering, Macquarie University, Sydney 2109,
NSW, Australia 02/2021 – 04/2022

Key Responsibilities

Research

1. **Development of Sustainable Geopolymer-Concrete using a cheap alternative activator.** “Developing new materials that will reduce the emissions of carbon dioxide by using a waste material such as a rock dust in geopolymer concrete”.
2. **Development of Sustainable Geopolymer Concrete Using Bio-treater sludge**

Collaborations

- Centre of advanced materials, Qatar University - Qatar
- Sultan Qaboos University - Oman

Publish high-quality journals (Q1) – Published 8 Q1 journals and Chapter book since Feb. 2021

Develop the Civil and Environmental Engineering lab

Technical and Teaching assistance on:

Semester 1 2022

CIVL3201: Transport Engineering

CIVL3301: Structural Design 1 Reinforced Concrete Design

CIVL2201: Soil Mechanics

Semester 2 2021

CIVL2301: Structural Analysis

CIVL2205: Geotechnical Engineering

Semester 1 2021

MECH2002: Fluid Mechanics

CIVL2201: Soil Mechanics

ENGG1000: Introduction to Engineering

Researcher

08/2019 – 01/2021

Centre for Future Materials (CFM), University of Southern Queensland, Toowoomba, Australia

Research

Geopolymer concrete and waste materials.

Properties of concrete with oil-contaminated sand

Key Responsibilities

Teaching

CMG1002: Residential Construction: Methods, Materials, and Management - Teaching assistance

CIV2503: Structural Design I – Marker

CIV3703: Transport Engineering – Marker and Teaching assistance

CIV2502: Structural and Building Technology - Teaching assistance

CIV2702: Municipal Services- Marker

ERP2019: Engineering Research Project

Supervision

- Supervision students (MSc and Ph.D.)
 - Sachindra Premasiri “Flexural Performance of Macro Poly Fiber Reinforced Concrete”. Master of Engineering, 2019, University of Southern Queensland, Toowoomba, Australia. **Graduated**
 - Vilive Tuatoko Anise, “Investigating the flexural properties of 40Mpa strength recycled macro poly fiber reinforced concrete”. Master of Engineering, 2019, University of Southern Queensland, Toowoomba, Australia. **Graduated**
 - Kushum Kathayat, “Behaviour of concrete with Recycled glass”, Master of Engineering, 2020, University of Southern Queensland, Toowoomba, Australia. **Graduated**
 - Sunilkumar Patel, “Investigating flexural properties of concrete with recycled glass”. Master of Engineering, 2020, University of Southern Queensland, Toowoomba, Australia.
 - Amer Oun, “Mechanical behaviour of sisal fibers/epoxy composites with addition of fillers”. Ph.D. candidate 2020, University of Southern Queensland, Toowoomba, Australia. **(Final year)**.
- Publish high-quality journals (Q1)

Achievements

- More than 48 technical reports to industry partners (Austrck, Oxford Pty. Ltd., UK and Perma Composites. Pty. Ltd., Australia)
- Develop a new waste material to be used in geopolymer as a reactive material – Environmentally friendly materials. “Development of Sustainable Geopolymer-Concrete Using Coal Seam Gas Produced-Water as Activator”.
- Skills through industrial grants
- Published more than 6 Q1 journals.

Grants

Abousnina R. (CI) "*Physical and mechanical properties of concrete with heavy crude oil contaminated sand*", Endeavour Research Fellowship, Dept. of Education and Training, Australian Government, 2018: AU \$24.5k.

Alajarmeh O, **Abousnina R.**, Allan Manalo, Ferdous W., Yanru Wang., and Pully Bury. “New management and implementation of the industrial FRP composite waste dust” Capacity Building Grant, University of Southern Queensland, **2021-2022, AU\$9.941k.**

Bundschuh J., **Abousnina R.** and Les Bowtell. “Forward osmosis system” University of Southern Queensland, 2016, **AU\$30k.**

Ferdous W., **Abousnina R.**, Mehrinejad M., and Alajarmeh O. “Value-adding and reusing waste tires for laminated rubber structures” Capacity Building Grant, University of Southern Queensland, 2020-2021, **AU\$15k.**

Research fellow, in School of Engineering, Faculty of Science and Engineering, University of Waikato, New Zealand

03/ 2019 – 07/ 2019

Key Responsibilities

Research

Chief Investigator on project “Development of Geopolymer Concrete Using Basalt Rock Powder”.

- Chief Investigator on project “Potential of APQ Rock powder – Basalt and Gun-lake Powder - Granite as Pozzolan Materials for Portland-Cement Mortars
- Collaborate with industries partners.
- Publish high-quality journals (Q1)

Teaching

- **ENGCV251-19A (HAM) – 1:** Construction - Teaching assistance

Supervision

- Supervision students (MSc)
 - Emma Ma “Potential of APQ and Gun-lake Rock Flour Powder as Pozzolan Materials for Portland cement mortar”. Master of Engineering Research, **2019, University of Waikato, Hamilton, New Zealand. Graduated**

Achievements

- Upgrade technical knowledge and skills and expand my industrial collaboration with two main companies KayaSand and Holcim.
- Gained familiarity with New Zealand Standards and improved my teaching and supervision skills.
- Teaching skills has been improved through using different teaching system (New Zealand teaching system)
- Created a good industrial partner KayaSand and Holcim companies.
- Published high-quality journals (Q1)
- Graduated one MSc student – Supervisor.
- Received a salary increment from step 03 to step 04 for my satisfactory performance and good evaluation from both the teaching team and students.

Postdoctoral fellowship, department of Civil and Architectural Engineering College of Engineering Sultan Qaboos University-Oman

04/ 2018 – 11/ 2018

Key Responsibilities

Research

- Chief Investigator on the project “Development of Geopolymer Concrete Using Rock Powder-Oman rocks”.
- Chief Investigator on the project “Physical and mechanical properties of concrete containing heavy crude oil contaminated sand”.

Supervision

- Supervision students (MSc)
 - Aleksandra Liszka, “Geopolymer paste With Oil Contaminations”, Master of Engineering, Department of Civil and Architectural Engineering (CIVIL), 2018, SQU, Oman. **Graduated**
 - Publish high-quality journals (Q1)

Achievements

- Has a great collaboration with Petroleum Development Oman (PDO), one of the biggest oil companies in Oman.
- Create a good collaboration with the Oil and Gas Research Centre at SQU – Oman to share my knowledge and experience in produced water treatment.
- New collaborations – Qatar University - University of Laghouat, Algeria
- Supervised one master’s student – Graduated.

Research Engineer, Department of Civil and Centre for Future Materials (CFM), University of Southern Queensland Toowoomba, Australia 02/ 2013 – 03/ 2018

Key Responsibilities

Research

- A chief investigator in the following research areas:
- Effects of light crude oil contamination on the physical and mechanical properties of geopolymer cement mortar
- The geotechnical properties of oil-contaminated sand with different percentage (up to 20% by weight of the sand), was investigated experimentally and analytically.
- The effect of different crude oil contaminations on the mix, curing, w/c ratio, strength development, and strength (compression and tensile) was investigated experimentally and analytically.
- The effect of light crude oil on the physical and mechanical properties of geopolymer concrete was investigated experimentally and analytically.

Teaching

- CIV2503 - Structural Design I - Teaching assistance
- CIV3906 - Civil System Practice - Teaching assistance
- ENG2111- Engineering associate degree Design Project - Teaching assistance
- ENG2911 – AD Capstone Project - Teaching assistance
- ENG8001 Engineering Research Methodology - Teaching assistance

Supervision

- Supervision students (BSc and MSc)
 1. Ashleigh Braden, “The Effect of Fibres on the Properties of Concrete with Oil Contaminated Sand” Bachelor of Civil Engineering (Honours), graduated in 2015, **USQ, Australia**.
 2. Zaffar Mohammed, “Bond behaviour of Steel Reinforcement to Concrete with Oil Contaminated Sand, Bachelor of Engineering Civil, graduated in 2015, **USQ, Australia**.

3. Job King, "Behaviour of Concrete with Oil Contamination and Reinforced with Fibres" Bachelor of Engineering (Honours) (Civil)" graduated in 2016. **USQ, Australia.**
4. Peter Mathew, Midhun, Comparative study on the behavior of reinforced concrete beams with and without oil contamination, Master of Engineering Sciences (CIVIL), 2017, **USQ, Australia.**
5. Monica Simhadri, "Comparative study on the behavior of reinforced concrete beams with and without oil contamination", Master of Engineering Sciences (CIVIL), 2017, **USQ, Australia.**
6. Haifa Alsalmi, "Properties of Geopolymer Mortar Containing Oil Contaminated Sand and Fibres", Master of Engineering Sciences (CIVIL), 2017, **USQ, Australia.**
7. Nathan Pamogas, "Durability of epoxy-coated GFRP composites vs uncoated GFRP composites", Bachelor of Engineering – Honours, 2018, **USQ, Australia.**

All students were graduated.

- Publish high-quality journals (Q1)

Achievements

- Successfully managed and completed industry research projects involving the strength analysis, failure analysis, and damage assessment of new and innovative construction technologies/systems in Geopolymer concrete
- Presented projects in meetings and conferences.
- Mentored and trained junior team members and students Achievements.
- Successfully published more than 12 Q1 journals and 5 conference papers
- Teaching skills have been improved.

Research Engineer, Department of Civil and Environmental Engineering Wollongong University, Australia

06/ 2010 – 12/ 2012

Key Responsibilities

- A chief investigator in "Oily Wastewater Treatment: Removal of Dissolved Organic Components by Forward Osmosis".
- Publish high-quality journals (Q1)

Achievements

- Proficiency in Membrane technology, Forward Osmosis FO (HTI-Pouch and HTI-Cartridge).
- Proficiency in Water treatment – Oily wastewater treatment using Membrane technologies and Forward osmosis – FO, NF membranes (namely NF270 and NF90)
- Proficiency in Water treatment using Membrane technologies, and hybrid systems (FO, RO, MD)
- Proficiency in Excellent research skills evidenced by my research activities, publications records, and national and international conferences

Loss prevention and Environment trainer Petro-Canada, Libya

09/ 2006 – 12/ 2009

Key Responsibilities

- HSE Support - Systems Development & Implementation
- Auditing / Training / Coaching / Construction Safety / Supervision/
- Environmental issues/ Oil contamination/ Radiation/ Oily Wastewater treatments
- Corrosion inhibitor/Biocide treatment

Achievements

- Proficiency in developing and updating Permit to work system.
- Proficiency in inductions – Oil / Gas – construction projects
- Proficiency in loss prevention and Environment training

- Proficiency in training – different nationality and different education levels
- Proficiency in Corrosion inhibitor oil facilities (separators, heaters, oil tanks, pipelines, etc) and Biocide treatment in the water injection system

Plant Operations / Field Operations / Maintenance 05/ 1994 – 08/ 2006

/Advisor Role Construction

VEBA Oil Operations, Harouge Oil Operations, Libya

Key Responsibilities

2005 – 2006 Production and process specialist.

2002 – 2005 Production and process Forman.

1994 – 2002 Process operator level (3, 2, 1).

Achievements

- Proficiency in Commissioning oil plants
- Proficiency in Risk assessments
- Proficiency in Developing and updating Permit-to-work system
- Proficiency in Inductions – Oil / Gas – construction projects
- Proficiency in Safety procedures and PTW system
- Proficiency in Operations (Oil plants, Gas plants, Gas oil extraction, and water injection)

Industrial Training

2009 Emergency Response System, Petro-Canada

2009 Level 3 Award (UK) INTERNAL BS OHSAS 18001 AUDITOR AWARENESS, Libya

2009 Storage tank fire hazard Management Tripoli-Libya

2008 First Aid Course, Veba Oil Operations

2007 Loss Prevention & Environment Train the trainer, Tripoli, VOO Head office

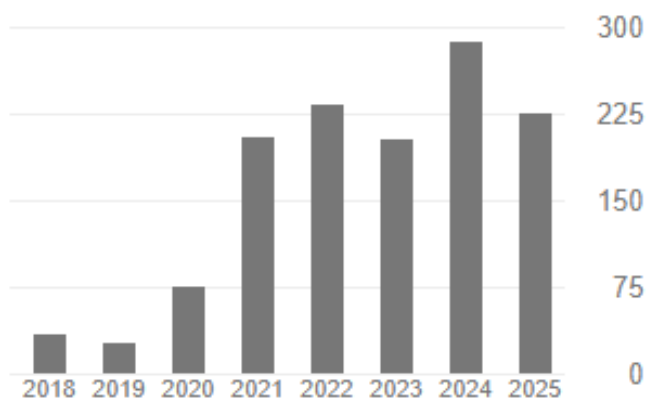
2004 Process & Production Specialist

2002 Production Operations for Technicians Hungary-Austria

Total citations:
1348

Citations	1348	1237
h-index	21	19
i10-index	34	33

h-index:
21



1. Berkani, M. D., Benabed, B., Taleb, O., Ouldkaoua, Y., Laidani, Z. e. a., Sahraoui, M., & **Abousnina, R. (2025)**. Sustainable self-compacting mortars incorporating calcined bentonite and recycled glass powder: time-dependent mechanical and durability performance assessment. *Mechanics of Time-Dependent Materials*, 29(4), 91. <https://doi.org/10.1007/s11043-025-09829-1>
2. **R. Abousnina**, F. Aljuaydi, B. Benabed, M. H. Almabrok, and V. Vimonsatit, "A State-of-the-Art Review on the Influence of Porosity on the Compressive Strength of Porous Concrete for Infrastructure Applications," *Buildings*, vol. 15, no. 13, p. 2311, **2025**. [Online]. Available: <https://www.mdpi.com/2075-5309/15/13/2311>.
3. **R. Abousnina**, N. Ghaffour, and L. D. Nghiem, "Mitigating offshore oily wastewater pollution: Sustainable strategies for treatment, disposal, and reuse," *Marine Pollution Bulletin*, vol. 219, p. 118240, **2025/10/01/ 2025**, doi: <https://doi.org/10.1016/j.marpolbul.2025.118240>.
4. Ouldkaoua, Younes, Mohamed Sahraoui, Zine El Abiddine Laidani, Benchaa Benabed, **Rajab Abousnina**, and Mohamed El Ghazali Belgacem. "Optimizing Sustainable Self-Compacting Mortar Properties Using Natural Pozzolan and Glass Powder as Cementitious Materials: A Combination of Artificial Neural Networks and Statistical Mixture Design Approach." *Asian Journal of Civil Engineering* (**2025/05/14 2025**). <https://doi.org/10.1007/s42107-025-01357-0>. <https://doi.org/10.1007/s42107-025-01357-0>.
5. Boukhelkhal, Aboubakeur, Benchaa Benabed, **Rajab Abousnina**, and Vanissorn Vimonsatit. "Behavior of Self-Compacting Concrete Cylinders Internally Confined with Various Types of Composite Grids." *Buildings* 15, no. 8 (**2025**): 1286. <https://www.mdpi.com/2075-5309/15/8/1286>.
6. Hernoune, Houria, Younes Ouldkaoua, Benchaa Benabed, **Rajab Abousnina**, Vanissorn Vimonsatit, Ali Mohammed, and Allan Manalo. "Micro-Modeling of Polymer–Masonry Wall Composites under in-Plane Loading." *Journal of Composites Science* 9, no. 4 (**2025**): 179. <https://www.mdpi.com/2504-477X/9/4/179>.
7. Magdi H. Almabrok and **Rajab Abousnina**, Investigation of the Potential Use of Date Palm Fronds Ash (DPFA) as a Partial Replacement for Cement in Mortar. *International Journal of Civil and Structural Engineering Research*, **2025**. 12(2): p. 111-122.
8. **Abousnina, R.** and F. Aljuaydi, Effect of Curing Methods on the Mechanical Properties of Cement Mortar Contaminated with Heavy Crude Oil. *Journal of Building Materials and Structures*, **2024**. 11(2): p. 98-106.
9. **R. Abousnina**, "The Influence of Crude Oil Contamination on the Microstructure Properties of Fly Ash-Based Geopolymer Cement," in *Proceedings of the International Conference on Sustainability: Developments and Innovations*, **2024**: Springer, pp. 357-364.
10. F. Aljuaydi, **R. Abousnina**, R. Siddique, O. Alajarmeh, and A. Alajmi, "Microstructural analysis of geopolymer pastes contaminated with crude oil: Impact on efflorescence, physical properties, and mechanical performance," *Construction and Building Materials*, vol. 452, p. 138965, **2024/11/22/ 2024**, doi: <https://doi.org/10.1016/j.conbuildmat.2024.138965>.
11. Aljuaydi, Fahad, **Rajab Abousnina**, Omar Alajarmeh, and Abdalrahman Alajmi. "The Influence of Fibres on the Properties and Sustainability of Oil-Impacted Concrete." *Sustainability* 16, no. 17 (**2024**): 7344. <https://www.mdpi.com/2071-1050/16/17/7344>
12. Yu, Peng, Allan Manalo, Wahid Ferdous, Choman Salih, **Rajab Abousnina**, Tom Heyer, and Peter Schubel. "New Prediction Model for the Screw Pull-out Strength of Polymer Composite Railway Sleepers." *Construction and Building Materials* 433 (2024/06/28/ **2024**): 136720. <https://doi.org/https://doi.org/10.1016/j.conbuildmat.2024.136720>

13. Oun, Amer, Omar Alajarmeh, Allan Manalo, **Rajab Abousnina**, and Andreas Gerdes. "Durability of Hybrid Flax Fibre-Reinforced Epoxy Composites with Graphene in Hygrothermal Environment." **Construction and Building Materials** 420 (2024/03/22/ 2024): 135584. <https://doi.org/https://doi.org/10.1016/j.conbuildmat.2024.135584>.
14. Sharmin, Shaila, Prabir K. Sarker, Wahidul K. Biswas, **Rajab M. Abousnina**, and Usman Javed. 2024. 'Characterization of waste clay brick powder and its effect on the mechanical properties and microstructure of geopolymer mortar', **Construction and Building Materials**, 412: 134848.
15. Benchaa Benabed, **R. Abousnina**, Sorn Vimonsatit (2023). Influence of Metakaolin and Marble Powder as Partial Replacement of Cement on Some Properties of Self-Compacting Mortar. Concrete 2023. C. o. I. o. Australia. Perth, WA, Australia.
16. Runtian Zhu., Guoxian Wang., Yuebin Lin., Jinxi Long., Longji Du. M. G., Xusheng Du, **R. Abousnina** & T. Tafsirojjaman. (2022). The Electric–Thermal Effect of a Carbon-Fibre-Reinforced
17. Epoxy Composite and Its Corresponding Mechanical Properties. *Polymers*, 14, 4489.. Retrieved from <https://doi.org/10.3390/polym14214489>.
18. Hernoune, H., Benabed, B., **Abousnina, R.**, Alajmi, A., Alfadhili, A. M. G., & Shalwan, A. (2022). Experimental Research and Numerical Analysis of CFRP Retrofitted Masonry Triplets under Shear Loading. *Polymers*, 14(18), 3707. Retrieved from <https://www.mdpi.com/2073-4360/14/18/3707>
19. Oun, A., Manalo, A., Alajarmeh, O., **Abousnina, R.**, & Gerdes, A. (2022). Long-Term Water Absorption of Hybrid Flax Fibre-Reinforced Epoxy Composites with Graphene and Its Influence on Mechanical Properties. *Polymers*, 14(17), 3679. Retrieved from <https://www.mdpi.com/2073-4360/14/17/3679>
20. Alajmi, A., **Abousnina, R.**, Shalwan, A., Alajmi, S., Alipour, G., Tafsirojjaman, T., & Will, G. (2022). An Experimental and Numerical Investigation into the Durability of Fibre/Polymer Composites with Synthetic and Natural Fibres. 14(10), 2024.
21. Oun, A., Manalo, A., Alajarmeh, O., **Abousnina, R.**, & Gerdes, A. (2022). Influence of Elevated Temperature on the Mechanical Properties of Hybrid Flax-Fiber-Epoxy Composites Incorporating Graphene. *Polymers*, 14(9), 1841.
22. **R. Abousnina**, A. Manalo, W. Lokuge, and Z. Zhang, "Effects of light crude oil contamination on the physical and mechanical properties of geopolymer cement mortar," *Cement and Concrete Composites*, vol. 90, pp. 136-149, 2018/07/01/ 2018.
23. **R. Abousnina**, S. Premasiri, V. Anise, W. Lokuge, V. Vimonsatit, W. Ferdous and O. Alajarmeh (2021). "Mechanical Properties of Macro Polypropylene Fibre-Reinforced Concrete." 13(23): 4112.
24. **R. Abousnina**, H.I. Alsalmi, A. Manalo, R.L. Allister, O. Alajarmeh, W. Ferdous, K. Jlassi, Effect of Short Fibres in the Mechanical Properties of Geopolymer Mortar Containing Oil-Contaminated Sand, *Polymers* 13(17) (2021) 3008
25. Yu, P., Manalo, A., Ferdous, W., Salih, C., **Abousnina, R.**, Heyer, T., & Schubel, P. (2021). Failure analysis and the effect of material properties on the screw pull-out behaviour of polymer composite sleeper materials. *Engineering Failure Analysis*, 128, 105577. doi:<https://doi.org/10.1016/j.engfailanal.2021.105577>
26. Ferdous, W., Manalo, A., Salih, C., Yu, P., **Abousnina, R.**, Heyer, T., & Schubel, P. (2021). Behaviour of Polymer Filled Composites for Novel Polymer Railway Sleepers. 13(8), 1324.
27. Salih, C., Manalo, A., Ferdous, W., Yu, P., **Abousnina, R.**, Heyer, T., & Schubel, P. (2021). Effect of bending and compressive modulus of elasticity on the behaviour of timber-alternative railway sleepers supported by ballast. *Case Studies in Construction Materials*, 15, e00597. doi: <https://doi.org/10.1016/j.cscm.2021.e00597>
28. Yu, P., Manalo, A., Ferdous, W., **Abousnina, R.**, Salih, C., Heyer, T., & Schubel, P. (2021). Investigation on the physical, mechanical and microstructural properties of epoxy polymer matrix with crumb rubber and short fibres for composite railway sleepers. *Construction and Building Materials*, 295, 123700. doi: <https://doi.org/10.1016/j.conbuildmat.2021.123700>

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30. Ferdous, W., A. Manalo, P. Yu, C. Salih, **R. Abousnina**, T. Heyer and P. Schubel (2021). "Tensile Fatigue Behavior of Polyester and Vinyl Ester Based GFRP Laminates—A Comparative Evaluation." 13(3): 386.
31. A.A. Mohammed, A. Manalo, W. Ferdous, **R. Abousnina**, O. AlAjarmeh, P.V. Vijay, B. Benmokrane, Design considerations for prefabricated composite jackets for structural repair: Parametric investigation and case study, *Composite Structures* (2020) 113288.
32. **R. Abousnina**, A. Manalo, W. Ferdous, W. Lokuge, B. Benabed, and K. Saif Al-Jabri, "Characteristics, strength development and microstructure of cement mortar containing oil-contaminated sand," *Construction and Building Materials*, vol. 252, p. 119155, 2020/08/20/ 2020.
33. Alajarmeh, O., Manalo, A., Benmokrane, B., Ferdous, W., Mohammed, A., **Abousnina, R.**, . . . Edo, A. (2020). Behavior of circular concrete columns reinforced with hollow composite sections and GFRP bars. *Marine Structures*, 72, 102785. 2020
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34. Houria Hernoune, B. Benabed, Madyan Alshugaa, **Rajab. Abousnina**, AbdelHaMid Guettala, "Strengthening of masonry walls with CFRP composite: experiments and numerical modelling", *Journal of Silicate Based and Composite Materials*, (2020).
35. Z. E.-A. Laidani, B. Benabed, R. Abousnina, M. K. Gueddouda, and E.-H. Kadri, "Experimental investigation on effects of calcined bentonite on fresh, strength and durability properties of sustainable self-compacting concrete," *Construction and Building Materials*, vol. 230, p. 117062, 2020/01/10/ 2020.
36. Zine El-Abidine Laidani, Benchaa Benabed, **Rajab Abousnina**, M. Kamal Gueddouda & M. Jamal Khatib (2020) Potential pozzolanicity of Algerian calcined bentonite used as cement replacement: optimisation of calcination temperature and effect on strength of self-compacting mortars, *European Journal of Environmental and Civil Engineering*, DOI: 10.1080/19648189.2020.1713898
37. Y. Ouldkaoua, B. Benabed, **R. Abousnina**, E.-H. Kadri, J. Khatib, Effect of using metakaolin as supplementary cementitious material and recycled CRT funnel glass as fine aggregate on the durability of green self-compacting concrete, *Construction and Building Materials* 235 (2020) 117802.
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39. Zine El-Abidine Laidani, Benchaa Benabed, **Rajab Abousnina**, M. Kamal Gueddouda, El-Hadj Kadri "Fresh Properties, strength and durability of sustainable self-compacting concrete incorporating calcined bentonite". *Construction and Building Materials*, 2019.
40. Younes Ouldkaoua, Benchaa Benabed, **Rajab Abousnina**, El-Hadj Kadri, " Experimental study on the reuse of cathode ray tubes funnel glass as fine aggregate for developing an ecological self-compacting mortar incorporating metakaolin, *Journal of Building Engineering*, 2019.
41. W. Lokuge, **R. Abousnina** and Nilupa Herath, "Behaviour of geopolymer concrete filled pultruded GFRP short columns" *Journal of Composite Materials*, 2019.
42. Younes Ouldkaoua, Benchaa Benabed, **Rajab Abousnina**, El-Hadj Kadri, " Rheological properties of self-compacting concrete prepared with metakaolin powder and recycled CRT funnel glass aggregate, *Journal of Silicate Based and Composite Materials*, 2019.
43. **R. Abousnina**, A. Manalo, W. Lokuge, and K. S. Al-Jabri, "Properties and structural behavior of concrete containing fine sand contaminated with light crude oil," *Construction and Building Materials*, vol. 189, pp. 1214-1231, 11/20/ 2018.

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