

**Reham B. Osman**, PHD (Otago University)

Professor of Prosthodontics

**Top 2 % scientists and most highly cited academics 2023-2025**

**Top 5% scientists in SciRank Global Registry 2025**

**Personal Information**

**Nationality:** Egyptian

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25<sup>th</sup> February 2026

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◆ **Qualifications**

**2000**

Bachelor of Dental Surgery (BDS) from the Faculty of Dentistry, Cairo University, Egypt.

**2006**

Master of Science (MSc, Prosthodontics) from the Faculty of Dentistry, Cairo University, Egypt.

**2013**

Clinical Doctor of Philosophy (PhD) from the Faculty of Dentistry, University of Otago, Dunedin, New Zealand.

**2014**

Post-Doctoral Fellowship, Oral Implantology and Prosthetic Department, *ACTA* (Academic Center of Dentistry Amsterdam), Amsterdam, The Netherlands

**May 2007-2013**

Faculty of Dentistry, Cairo University, Egypt

Associate Lecturer, full time, Department of Prosthodontics

**May 2005- April 2007**

Faculty of Dentistry, Cairo University, Egypt

Clinical Tutor for 3<sup>rd</sup> and 4<sup>th</sup> dental students, Full time, Department of Prosthodontics

Demonstrator in Simulation Clinics for 2<sup>nd</sup> year dental students, Full time, Department of Prosthodontics

**January 2002- April 2005**

Faculty of Dentistry, Cairo University, Egypt

Resident, Department of Prosthodontics.

**January 2001-December 2001**

Dental centers of the Ministry of Health, Cairo, Egypt

General Dental Practitioner, full time.

**Website links for academic pages:**

◆ **Google Scholar:**

<https://scholar.google.com/citations?user=QnZJyZUAAAAJ&hl=en>

◆ **ResearchGate:** <https://www.researchgate.net/profile/Reham-Osman-2>

◆ **Linkedin:** [https://www.linkedin.com/in/reham-osman-10b78780/?lipi=urn%3Ali%3Apage%3Ad\\_flagship3\\_profile\\_view\\_base%3BXDXRlaSySWKmfJectzDCfg%3D%3D](https://www.linkedin.com/in/reham-osman-10b78780/?lipi=urn%3Ali%3Apage%3Ad_flagship3_profile_view_base%3BXDXRlaSySWKmfJectzDCfg%3D%3D)

- H-index=24/ Google Scholar
- H-index=22/ ResearchGate

- H-index= 20/Scopus
- Google Scholar i-10 Index: 30

◆ **Research Support**

**2019-till Now**

Supervision of Master and PhD Candidates in Faculty of Dentistry, Cairo University, Egypt and in ACTA/Amsterdam.

**Thesis Titled:** Predictability of Teeth Positions During Complete Denture Fabrication Using Rapid Prototyping Technology Compared to Conventional Fabrication Method: An in-vitro Study. (Completed)

**Thesis Titled:** Biomechanical Behavior of PEEK versus titanium implants in tooth-implant supported prostheses: A Three-dimensional finite element analysis. (Completed)

**Thesis Titled:** Effect of using Polyether ether Ketone versus metal mesh reinforcement on fracture resistance of maxillary polymethyl methacrylate denture bases. An in-vitro study. (Completed).

**Thesis Titled:** Evaluation of fracture resistance of 3D-printed implant retained overdenture with two different build angles. An in-vitro study. (Completed)

**Thesis Titled:** Integration of 3D-printing in Prosthodontics. (Completed)

**Thesis Titled:** Effect of printing layer thickness on growth of Candida albicans in completely edentulous patients rehabilitated with 3D-printed maxillary complete denture bases: A cross-over study. (In progress)

**Thesis Titled:** Evaluation of marginal bone level and biting forces in screw-retained implant prostheses using reinforced resin versus monolithic zirconium used in unilateral distal extension cases. (In progress)

**Thesis Titled:** Effect of layer thickness on the accuracy and printing time of 3D-printed maxillary complete denture bases. An in-vitro study (In progress)

**Thesis Titled:** Evaluation of bite-force distribution using T-scan III and oral health related quality of life in implant assisted overdentures fabricated with the aid of jaw motion analyzer (Zebris JMA optic) versus conventional technique with analogical articulator in completely edentulous patients: A cross-over randomized clinical trial. (In progress)

**Thesis Titled:** Evaluation of accuracy of different extraoral optical scanners and smart phone scanner in orbital defects: Comparative in vitro study. (In progress).

**Thesis Titled:** Evaluation of the accuracy of digital scans of mouth preparations for maxillary Kennedy class III cases using different types of scanners. An in vitro study. (In progress)

**Thesis Titled:** Hardness and surface roughness of acrylic soft liner modified with silver nanoparticles versus conventional acrylic soft liner on mandibular denture bases: An in vitro study.

**Peer-Review Process for National and International Journals:**

- A reviewer for the Journal of Dentistry
- A reviewer for the Journal of Prosthetic Dentistry

- A reviewer for the Australian Dental Journal
- A reviewer for the Journal of Advanced Dental Research

◆ ***Prizes and Awards***

**2025:**

Top 5% scientists in SciRank Global Registry based on rigorous bibliometric analysis.

**2025:**

Listed as per Stanford University classification as one of the top 2% scientists with their scientific contributions being the most cited in the field of Prosthodontics; Subfield: Dental Materials.

**2024:**

Listed as per Stanford University classification as one of the top 2% scientists with their scientific contributions being the most cited in the field of Prosthodontics; Subfield: Dental Materials.

**2024:**

Honorary award by Faculty of Dentistry, Cairo University for the Contribution to international publication.

**2024:**

Honorary award by Cairo University on the 95<sup>th</sup> students' Graduation Day Ceremony for the Contribution to international publication.

**2023:**

Selected as per Stanford University classification as one of the top 2% scientists with their scientific contributions being the most cited in the field of Prosthodontics.

**2019:**

An award with a total sum of Egyptian pound 8,000 for international publication.

**2018**

Co-supervision of PhD thesis entitled: "Integration of 3D printing in Prosthodontics" at ACTA. Degree was awarded to student with Cum Laude.

**2014**

ITI Scholarship

**2013**

Article "Patients' perspectives on zirconia and titanium implants with a novel distribution supporting maxillary and mandibular overdentures: a qualitative study" in \*Clinical Oral Implants Research\* was featured on the MDLinx.com website for being the most read article that matter in the daily lives of dentists physicians, other healthcare professionals and patients.

**2013**

Article "Ceramic implants (Y-TZP): are they a viable alternative to titanium implants for the support of overdentures? A randomized clinical trial" in \*Clinical Oral Implants Research\* was rated on the MDLinx.com website by physician editors as being the number one article among all other dentistry articles published during that month.

**2009**

University of Otago Prestigious Doctoral Scholarship

◆ ***Funds & Grants:***

▪ **2022:**

Competitive Research Project fund from Sharjah University with a total sum of UAE 108,000.

▪ **2021**

Ajman University funded research grant with a total sum of UAE 48,500.

▪ **2016**

ITI-Clinical Research Grant for conducting a trial evaluating the accuracy of digital planning for the surgical placement of two-piece zirconia implants (€ 136,000 awarded, implants and implant components).

▪ **2011**

Kate Sheppard Memorial Award Trust (NZ \$ 2, 500 awarded).

▪ **2009**

Southern Implant Ltd, Irene, South Africa (Implants & implant components, NZ \$80,000 awarded).

◆ ***Courses and Workshops***

**May- December 2024**

A series of courses entitled: Egyptian Knowledge Bank (EKB) and search for scientific sources, Art of effective leadership, International Publishing of Scientific Research, Essentials of Integrated Education

**February- September 2023**

A series of courses entitled: Legal and Financial Aspects in University Environment., Fundamentals of Digital Transformation, Stress Management in Work Environment, Communication Skills in Different Educational Settings

**June 2022**

Exocad training workshop for the design of different dental and implant prosthetics.

**June 2021**

Implant training course in UCAM- Barcelona Spain

**August 2011**

An update on Nobel Biocare Implant Systems, Seminar series at Sir John Walsh Research Institute, University of Otago, Dunedin, New Zealand.

**November 2010**

Word 2007 for Thesis Writing course provided by Information Technology Services, IT Training Program, University of Otago, Dunedin, New Zealand.

**July 2010**

Cone Beam Computed Tomography Seminar and workshop at Sir John Walsh Research Institute, University of Otago, Dunedin, New Zealand.

**May 2010**

A Quick Intro to SPSS (PASW) course provided by Information Technology Services, IT Training Program, University of Otago, Dunedin, New Zealand.

**November 2009**

EndNote X3 Overview Course provided by Information Technology Services, IT Training Program, University of Otago, Dunedin, New Zealand.

## **February/March 2008**

A series of courses: Communication skills, Presentation skills, The use of recent technology in teaching (E-learning), Scientific publishing courses as a part of continuous education, Cairo University, Cairo, Egypt.

### ◆ ***Professional Memberships***

Member of International College of Prosthodontics (ICP)

Member of Egyptian Dental Association

### ◆ **Research Experience**

- Conducting a controlled clinical trial to evaluate the clinical and prosthodontic outcomes of zirconia implants supporting overdentures, in the context of novel implant distributions.
- Performing a failure analysis of clinically fractured single-piece zirconia implants using standardized fractographic techniques.
- Qualitative analysis of patients' perspectives on zirconia and titanium implants with a novel distribution supporting maxillary and mandibular overdentures.
- A systematic review on the prosthodontic maintenance requirements of maxillary implant overdentures.
- Proposal of novel implant distributions for the support of overdentures and the rationale behind such distributions.
- An in-vitro study comparing the biomechanical behavior between zirconia and titanium implants supporting maxillary overdentures using finite element analysis.
- An in-vitro study comparing the biomechanical behavior between conventional and novel suggested distribution of zirconia implants supporting maxillary overdentures using finite element analysis and strain gauge techniques.
- Evaluating the accuracy of the digital planning for surgical placement of two-piece zirconia implants.
- A series of in-vitro studies that evaluated the influence of different build parameters of 3D-printing technology on the accuracy and mechanical properties of printed parts.
- In-vitro and In-vivo studies evaluating PEEK as an implant and a prosthetic material.
- Several in-vivo and in-vitro trials evaluating the integration of digital technologies (milling- 3D Printing, Intraoral scanners) in Prosthodontics.

### ◆ **Future research projects**

- Application of Digital technology (3D-Printing, Milling, Scanners, Photogrammetry and AI) in Prosthodontics.

### ◆ **Selected Peer-Reviewed Publications**

1. **Osman, R.B.**, Payne, A.G.T., Ma, S. Prosthodontic maintenance of maxillary implant overdentures: A systematic literature review. *Int J Prosthodont* 2012; 25: 381-391. <https://europepmc.org/article/med/22720290>.
2. **Osman, R.B.**, Elkhadem, A.H., Ma, S., Swain, M.V. A finite element analysis of a novel implant distribution supporting maxillary overdentures. *Int J Oral Maxillofac Implants*; 2013; 28: e1-e10. Doi:10.11607/jomi.2303. <https://doi.org/10.11607/jomi.2303>.
3. **Osman, R.B.**, Elkhadem, A.H., Ma, S., Swain, M.V. Titanium versus zirconia implants supporting maxillary overdentures. Three-dimensional finite element analysis study. *Int J Oral Maxillofac Implants*; 2013; 28: e198-e208. Doi:10.11607/jomi.3019. <https://doi.org/10.11607/jomi.3019>.
4. **Osman, R.B.**, Payne, A.G.T., Ma, S., Duncan, W. Zirconia implants supporting overdentures: A pilot study with novel prosthodontic designs. *Int J Prosthodont*; 2013; 26: 277-281. <https://doi.org/10.11607/ijp.2903>.
5. **Osman, R.B.**, Ma, S., Duncan, W., De Silva, R.K., Siddiqi, A., Swain, M.V. Fractured zirconia implants and related implant designs: scanning electron microscopy analysis. *Clin Oral Implants Res*; 2013; 5: 592-597. <https://doi.org/10.1111/j.1600-0501.2011.02411.x>.
6. **Osman, R.B.**, Morgaine, K., Duncan, W., Swain, M.V., Ma, S. Patients' perspectives on zirconia and titanium implants with a novel distribution supporting maxillary and mandibular overdentures: A qualitative study. *Clin Oral Implants Res*; 2014, 25: 587-597. <https://doi.org/10.1111/clr.12106>.
7. **Osman, R.B.**, Duncan, W., Swain, M.V., Ateih, M., Ma, S. Ceramic implants (Y-TZP): are they a viable alternative to titanium implants for the support of overdentures? A randomized Clinical Trial. *Clin Oral Implants Res*; 2014, 25: 1366-1377. <https://doi.org/10.1111/clr.12272>.
8. **Osman, R.B.**, Duncan, W., Swain, M.V., Ma, S. Prosthodontic maintenance of overdentures on zirconia implants: 1-year results of a randomized controlled trial. *Int J Prosthodont*; 2014, 27: 461-468. <https://doi.org/10.11607/ijp.3626>.
9. **Osman, R.B.**, Swain, M.V., A critical review of dental implant materials with an emphasis on titanium versus zirconia. *Materials*; 2015, 8: 932-958. <https://doi.org/10.3390/ma8030932>.
10. K. Zygogiannis, I. Aartman, D. Wismeijer, **R. Osman**. A systematic review on immediate loading of implants used to support overdentures opposed by conventional prostheses: factors that might influence clinical outcomes. *Int J Oral Maxillofac Implants*. 2016; 31(1):63-72. <https://doi.org/10.11607/jomi.4028>.
11. N. Alharbi, **R. Osman**, D. Wismeijer. Factors influencing the dimensional accuracy of 3D-printed full coverage dental restorations using stereolithography technology. *Int J Prosthodont* 2016; 29: 503–510. <https://doi.org/10.11607/ijp.4835>.
12. N. Alharbi, **R. Osman**, D. Wismeijer. Effects of build direction on the mechanical properties of 3D-printed full coverage dental restorations. *J Prosthet Dent*. 2016; 115(6):760-767. <https://doi.org/10.1016/j.prosdent.2015.12.002>.
13. **R. Osman, N.** Alharbi, D. Wismeijer. Build angle, does it have an influence on the accuracy of 3D-printed dental restorations using digital light-processing technology? *Int J Prosthodont* 2017; 30:182–188. PMID: **28267830** DOI: [10.11607/ijp.5117](https://doi.org/10.11607/ijp.5117)

14. **R. B. Osman**, A. J. Van der Veen, D. Huiberts, D. Wismeijer, N. Alharbi. 3D-printing zirconia implants; a dream or a reality? An in-vitro study evaluating the dimensional accuracy, surface topography and mechanical properties of printed zirconia implant and discs. *J Mech. Behavior Biomed Mat.*, 2017;75: 521-528. <https://doi.org/10.1016/j.jmbbm.2017.08.018>.
15. N. Alharbi, **R. Osman**, D. Wismeijer. Additive manufacturing techniques in Prosthodontics, where do we currently stand? A Critical review. *Int J Prosthodont*; 2017;30: 474-484. <https://doi.org/10.11607/ijp.5079>.
16. T. Elawadly, I. A. W. Radi, A. El Khadem, **R. B. Osman**. Can PEEK be an Implant Material? Evaluation of Surface Topography and Wettability of Filled Versus Unfilled PEEK With Different Surface Roughness. *J Oral implantol*, 2017: 43 (6), 456- 461. <https://doi.org/10.1563/aaid-joi-d-17-00144>.
17. N. Alharbi, S. Alharbi, V. Cuijpers, **R. B. Osman**, D. Wismeijer. Three-dimensional evaluation of marginal and internal fit of 3D-printed interim restorations fabricated on different finish line designs. *J Prosthodont Res.* 2018: 62 (2): 218-226. <https://doi.org/10.1016/j.jpor.2017.09.002>.
18. AA Elsayyad, **R. B. Osman**. Osseodensification in implant dentistry: A critical review of the literature. *Impl Dent*; 2019: 28: 306-312. <https://doi.org/10.1097/id.0000000000000884>.
19. N Alharbi, AJ van de Veen, D Wismeijer, **R.B. Osman**. Build angle and its influence on the flexure strength of stereolithography printed hybrid resin material. An in vitro study and a fractographic analysis. *Materials Technology.* 2019; 34 (1): 12-17. <https://doi.org/10.1080/10667857.2018.1467071>.
20. T. A. ElAwadly, G. Wu, M. Ayad, I.A.W. Radi, D. Wismeijer, H. Abo El Fetouh, **R. B. Osman**. A histomorphometric study on treated and untreated ceramic filled PEEK implants versus titanium implants: Preclinical in vivo study. *Clin Oral Implant Res.* 2020: 31; 246-254. <https://doi.org/10.1111/clr.13562>.
21. **R.B. Osman**, AGT Payne, M Sunyoung. Mantenimiento prostodóncico de las sobredentaduras maxilares implato-retenidas: Revisión sistemática de la bibliografía. *Revista internacional de prótesis estomatológica.* 2013: 15 (1), 41-45. <https://dialnet.unirioja.es/servlet/articulo?codigo=4221056>.
22. N. Alharbi, D. Wismeijer, **R.B. Osman**. Additive Fertigungsverfahren in der Zahnärztlichen Prothetik. Eine Kritische Standortbestimmung der Literatur. *Quintessenz Zahntech.* 2018: 44 (2), 170-186
23. N. Alharbi, D. Wismeijer, **R.B. Osman**. Einflussfaktoren der Dimensions Genauigkeit 3-D-Gedruckter vollanatomischer kronen bei Verwendung des Stereolithografieverfahrens. *Die Quintessenz der Zahntechnik.* 2017: 43 (3), 300-312
24. A.A. Alsayyad, N.A. Abbas, N. M. Abdel Nabi, R.B. Osman. Biomechanics of 3-implant-supported and 4-implant-supported mandibular screw-retained prostheses: A 3D finite element analysis study. *J Prosthet Dent* 2020;124 (1): 68.e1-68. e2. doi: 10.1016/j.prosdent.2020.01.015. <https://europepmc.org/article/med/3493177>.

25. N. Alharbi, ***R.B. Osman***. Does build angle have an influence on surface roughness of anterior 3D-printed restorations? An in-vitro study. *Int J Prosthodont*. 2021;34; 505-510. PMID: **33616553** DOI: [10.11607/ijp.7100](https://doi.org/10.11607/ijp.7100)
26. N. Alharbi, A. Alharbi, ***R.B. Osman***. Mode of bond failure between 3D-printed denture teeth and printed resin base material; effect of fabrication technique and dynamic loading. An in-vitro study. *Int J Prosthodont*. 2021; 34; 763-774. PMID: **33616552** DOI: [10.11607/ijp.6992](https://doi.org/10.11607/ijp.6992)
27. A. H. Elkhadem, ***R.B. Osman***. Influence of different fabrication techniques on the accuracy of radiographic scan templates in cases of full-arch computer-guided implant placement. An in- vitro study. *Int J Oral Maxillofac Implants*; 2022;37; 30-37. PMID: **35235617** DOI: [10.11607/jomi.9084](https://doi.org/10.11607/jomi.9084)
28. N. A. Hassan, M. Wagdy, A. H. Elkhadem, ***R.B. Osman***. Biomechanics of different types of PEEK as implant materials for implant-retained mandibular overdentures. A Three-Dimensional Finite Element Analysis. *European J Prosthodont & Rest Dent*; 2022; 30; 113-120. PMID: **34304396** DOI: [10.1922/EJPRD\\_2286Hassan08](https://doi.org/10.1922/EJPRD_2286Hassan08)
29. D. M. Elawady, W. I. Ibrahim, ***R.B. Osman***. Clinical evaluation of implant overdentures fabricated using 3D -printing technology versus conventional fabrication technique: A Randomized Trial. *Int J Comp Dent*; 2021; 24: 1-10. <https://europepmc.org/article/med/34931773>
30. A. Moussa, A.R. Taha, F. Rizk, ***R.B. Osman*** Effect of using Polyether Ether Ketone versus Metal Mesh Reinforcement on Fracture Resistance of Maxillary Polymethyl Methacrylate Denture Bases. An In- Vitro study. *Br J Med Health Res* 2021;8: 23-40.
31. WJ Duncan, S. Ma, A. Siddiqi, ***R.B. Osman***. Zirconia versus Titanium Implants: 8-Year Follow-Up in a Patient Cohort Contrasted with Histological Evidence from a Preclinical Animal Model. *Materials* 2022, 15, 5322. <https://doi.org/10.3390/ma15155322>
32. ***R.B. Osman***, N. Alharbi. Does the palatal vault form have an influence on the scan time and accuracy of intraoral scans of completely edentulous arches? An in-vitro study. *J Adv Prosthodont*. 2022; 14(5): 294-304. doi: [10.4047/jap.2022.14.5.29](https://doi.org/10.4047/jap.2022.14.5.29)
33. ***R.B. Osman***, N. Alharbi. Influence of scan technology on the accuracy and speed of intraoral scanning systems for the edentulous maxilla: An in vitro study. *J Prosthodont* 2023; 32: 821-828. PMID: **36571837** DOI: [10.1111/jopr.13633](https://doi.org/10.1111/jopr.13633)
34. ***Osman, R.B.***; Khoder, G.; Fayed, B.; Kedia, R.A.; Elkareimi, Y.; Alharbi, N. Influence of Fabrication Technique on Adhesion and Biofilm Formation of Candida Albicans to Conventional, Milled, and 3D-Printed Denture Base Resin Materials: A Comparative In Vitro Study. *Polymers* 2023; 15; 1836. <https://doi.org/10.3390/polym15081836>.
- 35- ***R.B. Osman***, N. Alharbi. The influence of different designs of bulb support structures on the accuracy and weight of the 3D-printed maxillary obturators. An in vitro study. *J Prosthet. Dent*. 2024; 132 (2) Pages 473.e1-473.e8. PMID: **38749893** DOI: [10.1016/j.prosdent.2024.04.023](https://doi.org/10.1016/j.prosdent.2024.04.023)
- 36- N. Alharbi, ***R.B. Osman***. Additive Manufacturing Technologies: Where Did We Start and Where Have We Landed? A Narrative Review. *Int J Prosthodont*. 2024; 37(7):243-252. PMID: **38787589** DOI: [10.11607/ijp.8828](https://doi.org/10.11607/ijp.8828)

- 37- A. Hytham, **R.B. Osman**. The Journey of Additive Manufacturing in Prosthodontics from the Early Dawn till the Current State of Art. A Narrative Review. *Int J Prosthodont*. 2025; 38(1): 126-137. PMID: **38848507** DOI: [10.11607/ijp.8998](https://doi.org/10.11607/ijp.8998)
- 38- D. Elawady, W. I. Ibrahim, R. G. Ghanem, **R. B. Osman**. Palatal vault configuration and its influence on intraoral scan time and accuracy in completely edentulous arches: a prospective clinical study. *J Adv Prosthodont* 2024; 16 (4): 201-211. PMID: 39221418 PMCID: [PMC11361821](https://pubmed.ncbi.nlm.nih.gov/PMC11361821/) DOI: [10.4047/jap.2024.16.4.201](https://doi.org/10.4047/jap.2024.16.4.201)
- 39- M.S. Fayed, N.N. Elsherbini, B. Mohsen, **R. B. Osman**. Digital wear analysis and retention of poly-ether-ether-ketone retentive inserts versus conventional nylon inserts in locator retained mandibular overdentures: in-vitro study. *Clin Oral Inv*; 2024; 8 (6): 468-477. PMCID: PMC11303480 PMID: [39105859](https://pubmed.ncbi.nlm.nih.gov/39105859/)
- 40- N. M. Alharbi, **R.B. Osman**. Augmented Reality Assisted Intraoral Scanning of Mandibular Arch: A Proof-of-Concept Pilot Clinical Study. *J Dent*; 2024; 150:105351. <https://dx.doi.org/10.1016/j.jdent.2024.105351>
- 41- M.S. Abdelaziz, **R.B. Osman**, A.A. Swelem. Fabrication of a single visit additively manufactured flexible removable partial denture as an immediate temporary prosthetic solution. *A dental Technique*. *Quintessence Int*. 2025; 56: 530-536. doi: 10.3290/j.qi.b 6354176.
- 42- N. Alharbi, **R.B. Osman**. Trueness of multichromatic versus monochromatic veneers printed using tilted stereolithography technology at different build angles: An in vitro study. *J Dent*. 2025; 156: 105702. <https://doi.org/10.1016/j.jdent.2025.105702>.
- 43- **R.B. Osman**, N. Alharbi. Influence of preparation design and build orientation on the accuracy of ceramic-filled composite veneers printed using tilted stereolithography technology. An in vitro study. *J Dent*. 2025; 161: 105875. <https://www.sciencedirect.com/science/article/abs/pii/S0300571225003197>.
- 44- N. Alharbi, **R.B. Osman**. Influence of preparation design and build angle on accuracy of chairside tilted stereolithography 3D printed multichromatic laminate veneers. A comparative in vitro study. *J Dent*. 2026; 165: 106263. Epub 2025 Nov 20. PMID: 41274627. <https://doi.org/10.1016/j.jdent.2025.106263>.
- 45- N. Alharbi, **R.B. Osman**. Performance and repeatability of different models of Chat Generative Pretrained Transformer (GPT) in generating removable partial denture framework designs. A comparative study. *J Dent*. 2026; 168: 106564. <https://doi.org/10.1016/j.jdent.2026.106564>.
- 46- N. Alharbi, A. Alharbi, **R.B. Osman**. Stain Susceptibility of 3D-Printed Nanohybrid Composite Restorative Material and the Efficacy of Different Stain Removal Techniques: An In Vitro Study. *Materials* 2021, 14(19), 5621. <https://doi.org/10.3390/ma1419562>.
- 47- M.S. Abdelaziz, **R.B. Osman**, H.I. Nassar, A.A. Swelem. Cross-Cultural adaptation of the Arabic version of the oral health impact profile in partially edentulous Egyptian population. *BMC Oral Health*. Under Review.

## Peer-Review Publications in Egyptian Dental Journals:

- 1- ***R.B. Osman***, W. A. El Razek. A three-dimensional finite element stress analysis of two different implant distributions supporting and retaining mandibular overdentures. Egyptian Dental Journal 2019; 65: 2673-2679.
- 2- ***Osman RB***, Abdel Aal MA. Comparative Assessment of retentive characteristics of Nylon Cap versus Retention.Sil in ball retained mandibular implant overdentures. A Randomized Clinical Trial. Egyptian Dental Journal 2019; 65: 1787-1794.
- 3- D.M.A. Elawady, ***R. B. Osman***. Immediate versus delayed implant placement in diabetic patients rehabilitated with mandibular overdentures. A split mouth study. Egyptian Dental Journal 2018; 64: 3641-3650.
- 4- S.A.Ghorab, ***R.B. Osman***. Comparative study between conventional and mini dental implants of different diameters supporting mandibular overdentures. A finite element stress analysis study. Egyptian Dental Journal 2018; 64: 3855-3863.
- 5- D. M.A. Elawady, A. F. Kaddah, A. Y. Alqutaibi, ***R. B. Osman***. The influence of implant number on peri-implant marginal bone level and implant failures in mandibular implant overdentures. A systematic review with meta-analysis. Int J Adv Res; 2017: 5 (7), 1326-1334.
- 6- M. Awajah, N. Abbas, ***R. Osman***. Evaluation of fracture resistance of 3d-printed implant retained overdenture with two different build angles. (An in-vitro study). Egyptian Dental Journal 2022; 68: 3495-3502.
- 7- ***R.B. Osman***, A. Fahmy. A Comparison of microbial flora in peri-implant sulcular fluid of ball versus locator retained mandibular implant overdentures. A randomized crossover study. Egyptian Dental Journal 2022; 65: 2651-2659.

## Courses and Workshops

### December 2024

Live CE Webinar titled: Intraoral photogrammetry: the new paradigm shift in implant scanning.

### October 2024

Egyptian Knowledge Bank (EKB) and search for scientific sources

### October 2024

Art of effective leadership

### May 2024

International Publishing of Scientific Research

### May 2024

Essentials of Integrated Education

### February 2023

Legal and Financial Aspects in University Environment.

### May 2023

Fundamentals of Digital Transformation

**August 2023**

Stress Management in Work Environment

**September 2023**

Communication Skills in Different Educational Settings

**June 2022**

Exocad training workshop for the design of different dental and implant prosthetics.

**June 2021**

Implant training course in UCAM- Barcelona Spain

**August 2011**

An update on Nobel Biocare Implant Systems, Seminar series at Sir John Walsh Research Institute, University of Otago, Dunedin, New Zealand.

**November 2010**

Word 2007 for Thesis Writing course provided by Information Technology Services, IT Training Program, University of Otago, Dunedin, New Zealand.

**July 2010**

Cone Beam Computed Tomography Seminar and workshop at Sir John Walsh Research Institute, University of Otago, Dunedin, New Zealand.

**May 2010**

A Quick Intro to SPSS (PASW) course provided by Information Technology Services, IT Training Program, University of Otago, Dunedin, New Zealand.

**November 2009**

EndNote X3 Overview Course provided by Information Technology Services, IT Training Program, University of Otago, Dunedin, New Zealand.

**February/March 2008**

A series of courses including: Communication skills, Presentation skills, The use of recent technology in teaching (E-learning), Scientific publishing courses as a part of continuous education, Cairo University, Cairo, Egypt.

**Referees****Professor Michael V. Swain**

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