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GENERAL INFORMATION

i) Aims & Scope

Journal of Dental & Oro-facial Research (JDOR) an Official Publication of Faculty of Dental Sciences and Faculty of Pharmacy, RUAS, Bangalore aims to publish quality, peer reviewed original research, case report, short communication, systematic reviews & metaanalysis on all aspects of dentistry with a special emphasis on dental & oro-facial research and Pharmacy. JDOR also aims to provide academicians, clinicians, scientists, pharmacists and students of fraternity with a platform for publication of their valuable research through an international journal, which will be available free online. Its scope, therefore, is huge, covering international & national open access research areas. The journal welcomes manuscripts viz; original research, case report, short communication, systematic reviews & metaanalysis in key schematic areas of Dental & Oro-facial Research due in accordance with following branches of dentistry:

- Community Dentistry and Oral Epidemiology
- Conservative Dentistry
- Dental Biomaterials
- Endodontics and Traumatology
- Implant Dentistry
- Oral and Maxillofacial Surgery
- Oral Medicine
- Oral Microbiology
- Oral Pathology

- Orthodontics
- Oral Radiology
- Pedodontics
- Periodontology and Periodontal Medicine and Pharmacy with following specializations:
 - Pharmacognosy
 - Pharmaceutical Chemistry
 - Pharmaceutics
 - Pharmacology
 - Pharmacy Practice

ii) Editorial Review Protocol

The acceptance criteria for all papers are the quality and originality of the research and its significance to our reader. Manuscripts are peer reviewed by two anonymous reviewers and by the Editorial Board. Final acceptance or rejection rests with the Editorial Board, who reserves the right to refuse any material for publication.

Manuscripts should be written so that they are intelligible to the professional reader who is not a specialist in the particular field. They should be written in a clear, concise, direct style. Where contributions are judged as acceptable for publication on the basis of scientific content, the Editor and the Publisher reserve the right to modify typescripts to eliminate ambiguity and repetition by improving communication between author and reader. If extensive alterations are required, the manuscript will be returned to the author

EDITORIAL

- 1. Artificial Intelligence and Beyond – A Paradigm Shift in Dental Sciences** **01-01**
Rakesh N.

ORIGINAL RESEARCH

- 2. Longitudinal Analysis of Artificial Intelligence Awareness amongst Dentists in India: A Cross- Sectional Study** **02-08**
Jaya Singh, Shruti Singh, Shaleen Chandra, Diksha Singh, Shadab Mohammad, Jinkimoni Singha, Pritha Chowdhury and Neelam Lodhi

REVIEW ARTICLE

- 3. Artificial Intelligence in Dentistry the Way Forward** **09-14**
Shruti Singh, Jaya Singh, Diksha Singh and Shaleen Chandra
- 4. Digital Technology and Artificial Intelligence in Prosthodontics** **15-19**
Sivaranjani Gali
- 5. An Overview of Artificial Neural Network in the Field of Pediatric Dentistry** **20-25**
Zakirulla M., Nouf Essa H. Assiri, Albatool Mohammed Alqahtani, Rasha Hussain H. Alzahrani, Maha M. Alrashed , Asma M. Alqahtani, Al-Hanoof K. Al-Qahatani, Atheer A. Alghozi, Sami M. Alawwad and Salem Almoammar
- 6. AI in Healthcare and Medicine** **26-31**
Nithin T. P. and Aninditya Kaur
- 7. Artificial Intelligence- Finding new frontiers in Oral and Maxillofacial Radiology** **32-38**
Rema Jayalekshmy, Jayesh J. Unihan, Anjana Mohan Kumar and Shanila Abdul Majid
- 8. Smartphones and their Applications in Health care - A Review** **39-46**
Spoorthi Ravi Banavar and Prashanthi Chippagiri
- 9. Artificial Intelligence in Hospital Administration** **47- 50**
Mehrotra Avantika, and Mehrotra Prateek Kumar
- 10. An Overview of Application of Intelligent Systems in Forensic Investigations** **51-57**
Ravleen Nagi, N. Rakesh, Sujatha S. Reddy, Konidena Aravinda, Ramanpal Singh Makkad and Tarun Vyas
- 11. Artificial Intelligence and Machine Learning: The new Frontier of Digital Dentistry** **58-63**
Sahana Kodimoole and Aninditya Kaur
- 12. CNN in Periodontology: A Review** **64-70**
Lavanya R., Sharad Kumar Hiremath, Srivatsav Cheruku, Saagar Bhargava, and Shalini Bhandari
- 13. Necessity of Artificial Intelligence to Detect Signal in the Field of Pharmacovigilance** **71-75**
Yalamanchili Jahnavi, Kevin James, Prizvan Lawrence Dsouza, Basavaraj B.V. and Viswam Subeesh

EDITORIAL

Artificial Intelligence and Beyond – A Paradigm Shift in Dental Sciences

Rakesh N.

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In last few decades enormous technology has revolutionized the field of medical and dental sciences. Researchers from across the world are consistently working on newer technologies that can not only mimic the human brain functioning but also have some traits of the human's such as the reasoning ability and experienced learning from practice without being programmed manually. With the efforts and minds of our eminent scientists today we have stepped into an era of artificial intelligence (AI).

AI is defined as a field of science and engineering concerned with the computational understanding of what is commonly called intelligent behavior and with the creation of artifacts that exhibit such behavior. In the last two decades AI has evolved rapidly and now we can remarkably visualize AI in every walk of life, ordinary or professional. Forecasting activities, designing, programming, human resources, information synthesis, face & voice recognition, navigation and so on the list goes. In field of medical and dental sciences AI can be a boon to practitioners in not only diagnosing but also providing prompt treatment to patients. Artificial neural networks are highly interconnected networks of computer processors which are based on biological nervous systems.

AI has limitless potentials in medical and dental fields; but this area is still in its infancy. Although AI application technology is progressing remarkably and clinical decision support systems is one such area. Artificial neural networks is being applied in various dental domains like

toothache prediction model, clinical approach to impacted teeth, difference in restorative materials, detection of caries etc. But all these developments are at the beginning stage and a lot more has to be done. In head and neck imaging, AI provides additional leverage owing to its unique ability to learn. It can be integrated with imaging systems such as magnetic resonance imaging and cone-beam computed tomography to identify minute deviations from normalcy that could have gone unnoticed by the human eye.

Although artificial intelligence is an emerging field and might play a vital role in dental sciences, but in no way it can replace the skill and capabilities of dentist. Technology of AI can imitate human mind but cannot exactly replicate its cognitive process, perception, imagination and thinking.

Hence to simulate real-life like situation and bring more specific results, a more engineered and structured form of artificial intelligence is introduced – synthetic intelligence; which unlike AI is a genuine form of intelligence that is capable of working similar to human mind. Synthetic intelligence emphasizes the design of self-replicating, self-assembling and self-organizing biomolecular elements capable of generating cognizing systems as larger scale assemblies, analogous to the neurobiological system manifesting human cognition. But the domain of synthetic intelligence still needs to be explored and research is going on in this direction.

