



University of Goce Delcev- Stip



**First International Students
Congress in Dental Medicine
- 2018**

**DIGITAL VS
ANALOGICAL
IN DENTAL
MEDICINE**

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	POSTER PRESENTATIONS Chairmen: Ass. D-r. Petrovski M.; D-r. Kocovski D.; student- Trajkova M.
Theme 1	Adhesive EverStick bridge- a single solution for lost tooth Author: <u>Marija Dejkoska</u> , Co- author: Stefan Ilievski Mentor: Sonja Rogoleva, Co-mentor: Ljupka Lazarova
Theme 2	Oral health related quality of life in patients with removable dentures Author: <u>Tatjana Lazareva</u> , Co-author: Anastasija Spasova Mentor: Darko Kocovski, Co-mentor: Katerina Zlatanovska
Theme 3	3D Printing in Dental Lab Author: <u>Emre Gulbahar</u> , Co-author: Lidija Angova Mentor: Apostoloski Pavle, Co-mentor: Kiril Mitevski
Theme 4	Identification and most common problems in dental impressions Author: <u>Jane Nacevski</u> , Co- author: Olivera Cekova Mentor: Katerina Zlatanovska, Co-mentor: Darko Kocovski
Theme 5	Application of combined fixed – mobile prosthetic allowances Author: <u>Manuel Stoimenov</u> Mentor: Ljupka Lazarova, Co-mentor: Sonja Rogoleva
Theme 6	Ivoclar porcelain sistem empres max, part from modern dentistry Autor: <u>Selman Candan</u> , Co-autor: Merve Bakan Mentor: Darko Kocovski, Co-mentor: Pavle Apostoloski
Theme 7	Prevalence, causes and prevention of post – cementation hypersensitivity Author: <u>Biljana Balshevska</u> Mentor: Katerina Zlatanovska, Co-mentor: Ivona Kovachevska
Theme 8	Digital technology and techniques used in the fabrication of complete dentures Author: <u>Simon Nadzenski</u> , Co-author: Hristijan Dimoski Mentor: Apostoloski Pavle, Co-mentor: Kiril Mitevski
Theme 9	Digital vs analog dental impression Author: <u>Magdalena Dejkoska</u> , Co-author: Slavica Tileva Mentor: Darko Kocovski, Co-mentor: Verica Toneva
Theme 10	Edelweiss veneers for perfect Hollywood smile- Case Report Author: <u>Packa Spasova</u> , Co- author: Ivana Spasova Mentor: Sonja Rogoleva, Co-mentor: Verica Toneva
Theme 11	Hand tracing vs. digital methods of cefalometric analysis Author: <u>Magdalena Koceva</u> , Co-author: Ana Trajkovska

3D Printing in Dental Lab

Author: **Emre Gulbahar**, Co-author: Lidija Angova

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Abstract

Researchers all over the world are very busy developing 3D printers that we will be able to use for many applications and (for now) in unimaginable ways. With the speed of developing increasing at an exponential rate, those developments are seemingly around the corner. In the dental technology world, engineers are coming close developing a 3D printer that will be able to print a complete denture, including both the resin base and the teeth. There is a lot to be excited about in the dental industry. It is considered a rapid technology because it eliminates several laborious steps used in conventional dental technology techniques and it takes nearly the same amount of time to produce one object or many. Therefore, its efficiency is enhanced by printing multiple units and relying upon the economies of scale. The objects the printer can produce for the laboratory include models (casts), crown and bridge resin burnout patterns for casting or pressing ceramics, temporary crowns, surgical guides, splints, partial denture framework patterns, custom impression trays, and more. With proper settings, it can consistently produce resin products of stunning accuracy and detail, especially when compared with subtractive milling technology. Conventional dental technology is subject to a high degree of inaccuracy, costly labor, and even more expensive materials. Making these objects not only requires a considerable amount of time, but also a highly skilled technician with a complete understanding of the process. And, last but not least, researchers at Wake Forest University in North Carolina say they have created a 3D printer that can produce organs, tissues, and bones that could theoretically be implanted into living humans. Using some of the same methods we are using to print today these researchers are laying down layers of human cells. They have printed out an ear-shaped piece of cartilage, a muscle, and a piece of a jawbone. BioPrinting is truly ground breaking. We may be a few years from printing the final restoration and even farther than that from printing a replacement jaw, but as the above research suggests we may be there sooner than we think.

Keywords

3D printers, CAD design, digital dental technology, bio print.