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## A unique computer-based technique for building dental and removable orthodontic appliances

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The aim of the study was to develop a new method to build dental appliances and apply the latest developments in additive manufacturing (AM) technology. A three dimensional scanner (3D) was used to scan the mouth. The scans were imported into a Computer Aided Design (CAD) called Freeform software which is connected to phantom arm to design the sleep apnoea device. The design was developed in this study using a novel additive manufacture technology. The developed design was then exported as a stereo-lithography (STL) file and transferred to an additive manufacture machine for 3D printing. The resultant design was acceptable and fitted on the dental casts and in the patient mouth. The hinges worked very well. Further studies for additive manufacturing materials need to be accomplished.

### Biography

Noor Al Mortadi has completed her PhD from Cardiff Metropolitan University in October 2014. Currently she is an Assistant Professor at Jordan University of Science and Technology in Department of Applied Dental Sciences/ Faculty of Applied Medical Sciences. She graduated with honor from Jordan University of Science and Technology in BSc Dental Technology. She got scholarships to study her Master in Scotland- UK and PhD in Wales-UK. She has published few papers in reputed journals and presented in many international conferences. She is a Member of Orthodontic Technician Association in UK.

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