

Jordan University of Science and Technology

An Electronic Method for Measuring the Fit of Removable Partial Denture Frameworks to Dental Casts

Authors: Robert J Williams; Tahseen Rafik; Al-Hourani Z

Abstract: It is well established that the Removable Partial Denture (RPD) is an effective treatment prosthesis. The objectives of a successful RPD are: to preserve the health of remaining oral structure, restore function and restore esthetics. To achieve these objectives, an RPD framework must fit accurately to the supporting structures. This paper presents a method for measuring the gaps or spaces present between the RPD framework and supporting structures which will enable the dentist and the dental technician to evaluate the accuracy of fitting of the prosthesis before it is delivered to the patient. The method used in this research is based on the principle of electric capacitance and uses a specially designed prototype measurement system.