

BIOGRAPHY



MAHMOUD HAFEZ is a pioneer in developing Patient Specific Instrument (PSI) technology for Total Knee Replacement (TKR). Professor and Head of the Orthopaedic Department, October 6 University, Egypt. Trained and worked in UK for > 10 years and got FRCS Ed & postgraduate MD degree from Leeds University. Subspecialty fellowship in hip and knee arthroplasty for 2 ½ years in Wrightington Hospital, Wigan, UK, Western Penn Hospital, Pittsburgh, USA and St Michael's Hospital, Toronto University Canada. After 17 years working abroad, he went back to Egypt with a mission to exploit his skills and experiences in research, education and clinical care and to transfer the technology of Computer Assisted Orthopedic Surgery (CAOS) & develop it further. CAOS experience started 1998 at the University of Hull, working to develop a robot for TKR. His MD research project in Leeds resulted in developing the novel technique of PSI for TKR. During his work in Pittsburgh, he tested the reliability of PSI and gained more experience in navigation and robotics. In Egypt, he established R & D lab to advance PSI technology leading to the filling of 18 patents. His patents "open-platform and hospital-based PSI" made the technique simple, inexpensive & suited for complex cases in developing countries. Now, using PSI routinely for complex and bilateral TKR in a cost-effective manner.

He is a member of the expert committee for additive manufacturing (3D printing), SAMA, Shanghai and member of scientific board for ConforMIS, USA. Board member of the National Authority for Compulsory Medical Training, The Cabinet of Ministers, Egypt. Executive Committee Member of CAOS (International Society of Computer Assisted Orthopaedic surgery)- IFIA (International and International Federation of Inventors Association), Geneva. An examiner for SICOT (World Orthopaedic Organization) Diploma, instructor for ATLS (Advanced Trauma Life Support), trainer for AO Recon courses and chairman of Int Arthroplasty Conference. Established the Egyptian Community Arthroplasty Register, associated with ISAR (International Society for Arthroplasty Registries), Sweden. Published 15 book chapters, 10 editorials & more than 50 originals in this field. He was invited to perform TKR using PSI as live surgery in more than 10 countries. Reviewer to JBJS-Am, CORR, BMJ, AO foundation R fund and ECRI institute.

Few grants & awards from China, Egypt, Japan, Switzerland, UK, USA, and others.

- Research Grant (£ 62,000) for my MD project, EPSRC, UK, 2001
- UK Alumni Global Award (winner, Entrepreneurial), British Council, Cairo, Egypt, Feb 2018
- Gold Medal with appreciation of the jury for my patent Switzerland 2016 and 2014
- Hap Paul award, International Society for Technology in Arthroplasty, USA 2010