CURRICULUM VITAE of
Name: Mohamed Zoubir BENDJABALLAH

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EDUCATION

Ph.D. in Applied Mechanics and Biomechanics, Sept 1996, University of Montreal, Quebec, Canada

M.Sc. in Applied Mechanics, June 1991, University of Montreal, Quebec, Canada

B.Sc. in Mechanical Engineering, June 1988, Ecole Polytechnique d'Alger, Algiers, Algeria

RESEACH AREAS

Model reconstruction and analysis of human tissues using finite element method

EMPLOYMENT

- **November 1996 – Present:** Assistant Professor King Saud University, College of applied Medical Sciences, Biomedical Technology Department.
- **September 1991 - October 1996**: Lecturer in Department of Mechanical Engineering Ecole Polytechnique *of M*ontreal

TEACHING

1. **General**: undergraduate courses taught at Ecole Polytechnique *of M*ontreal and King Saud University,
   - . Differential and Integral Calculus
   - . Differential Equations for Engineers
   - . Finite Elements Methods
   - . Vibrations
   - . Biomechanics
   - . Design of Orthotics and Prosthetics
   - . Mechanical Medical Equipments
   - . Statics
   - . Dynamics
   - . Strength of Materials
   - . Engineering Drawing
   - . Biomaterials
   - . Advanced Biomechanics

2. **Undergraduate Courses taught at King Saud University**
   BMT221: Mechanical Skills
   BMT222: Applied Mathematics in Biomedical Technology I
   BMT223: Applied Mathematics in Biomedical Technology II
   BMT228: Introduction to Biomechanics

BMT232: Mechanical Medical Equipments I
BMT335: Mechanical Medical Equipments II
BMT337: Introduction to Biomaterials
BMT338: Introduction to Design of Orthotics and Prosthetics
BMT432: Special Topics in Biomedical Technology
BMT432: Clinical Practice

3. **Graduate Courses taught at King Saud University**

PUBLICATION

1. Journals (last 5 articles regardless of the dates)

- **M. Z. Bendjaballah**, A. Shirazi-Adl and D. J. Zukor. "Biomechanics of the human knee joint in compression: reconstruction, mesh generation and finite element analysis", The Knee, Vol. 2. No 2, pp. 69-79, 1995
- **M. Z. Bendjaballah,** A. Shirazi-Adl and D. J. Zukor. "Finite Element Analysis of Human Knee Joint in Varus-Valgus", Clinical Biomechanics, Vol. 12,.No 3, pp. 139-148, 1997
- **M. Z. Bendjaballah,** A. Shirazi-Adl and D. J. Zukor. "Biomechanical response of the passive human knee joint under anterior-posterior forces", Clinical Biomechanics, Vol. 13. No 8, pp. 634-640, 1998
- **M. Z. Bendjaballah,** A. Al-Arabi and M. T. El-Wakad M. T. "Smooth versus threaded-neck dental implant designs using finite element analysis. 12th Saudi International Dental Meeting – Integrating Science into Dental Practice, 12 – 14 April, 2008 and Egyptian Dental Journal Vol. 54, No. 2, 1-15, 2008
- **M. Z. Bendjaballah** and M. T. El-Wakad M. T. "Prediction of the optimum number of teeth supporting a long fixed partial denture: A finite element model study" Al-Azhar Journal of Dental Sciences 305–312, 2009

2. Conferences (last 5 conferences regardless of the dates)

- M. Z. Bendjaballah, A. Shirazi-Adl and D. J. Zukor. "Passive Knee Joint Mechanics in Varus-Valgus Rotations", 42th Annual Meeting, Orthopaedic Research Society, Vol. 21, Atlanta. Georgia, 1996.

- M. Z. Bendjaballah, A. Shirazi-Adl and D. J. Zukor. "Finite Element Model Study of Human Knee Joint", Proceedings of the 1996 Engineering Systems Design and Analysis Conference. PD-Vol.-77, Vol. 7, pp. 19-26, 1996.

- M. Z. Bendjaballah and M.T. El-Wakad. "Prediction of the optimum number of teeth supporting a long fixed partial denture: A finite element model study", 12th International Conference of Machine design and production, (UMTIK2006) Kusadasi, Turkey, 5-8 Sep 691-702, 2006.

- **M. Z. Bendjaballah,** A. Al-Arabi and M. T. El-Wakad M. T. "Smooth versus threaded-neck dental implant designs using finite element analysis. 12th Saudi International Dental Meeting – Integrating Science into Dental Practice, 12 – 14 April, 2008

- M. Z. Bendjaballah. "Finite element study of load transfer in a splinted fixed partial denture", Accepted for publication in the 4th European Congress for Medical and Biomedical Engineering 2008, Antwerp, Belgium, 23 – 27 November, 2008.

3. Funded research (last 3 research proposals regardless of the dates)

- **Co-Investigator,** "Optimum number of teeth to support a fixed partial denture: Finite element modeling" grant funded by Research center of College of Applied Medical Sciences, (25,000 for 1 year), academic year 2006/2007. Completed on time**.**
- **Co-Investigator in a team of 4,** "Custom-made prosthesis for Saudi patients" grant funded by King Abdel-Aziz city for Science and Technology (~900,000 SR over a 3 year period), started October 2009.