

قائمة

تتقدم كلية الهندسة بتهنئة

الدكتور

Muhammad Ijaz

لحصوله على براءة اختراع

ناشئة من الإشراف

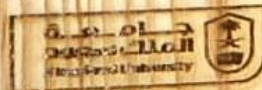
على مشروع تخرج الطلاب

في تخصص الهندسة الميكانيكية

متمنين له دوام التوفيق والنجاح



شركة وادي الرياض
Riyada Valley Co



كلية الهندسة



Muhammad Ijaz

From:

Vice Dean for Academic Affairs

Sent:

Tuesday, December 9, 2025 8:49 AM

To:

Muhammad Ijaz; Khalid Fouad Alqosaibi

Subject:

دعوة لحضور التكريم بكلية الهندسة

سعادة الدكتور/ محمد اعجاز المحترم،،

سعادة الدكتور/ خالد القصيبي المحترم،،

السلام عليكم ورحمة الله وبركاته،،

تهنئكم كلية الهندسة بمناسبة حصولكم على براءة اختراع متعلقة بإشرافكم على مشروع تخرج سابق، ويطيب لها دعوتكم لحضور التكريم الخاص بكم في فعالية يوم مشاريع التخرج بالكلية وذلك يوم الخميس 11 ديسمبر 2025م في تمام الساعة الواحدة ظهرا في مدرج كلية الهندسة (قاعة 1 ب 10).

مع تمنياتنا لكم بالمزيد من النجاحات،،



Revitalization of **Mechanical Technologies** in **Disability and Health care Applications :** A Research agenda

تفعيل التقنيات الميكانيكية في تطبيقات الرعاية الصحية والإعاقة: أجندة البحث



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 كلية الهندسة

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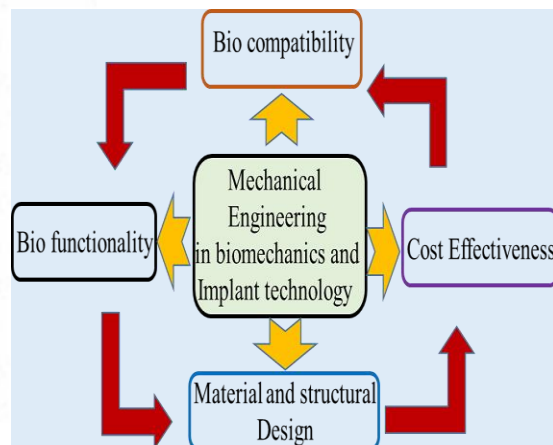
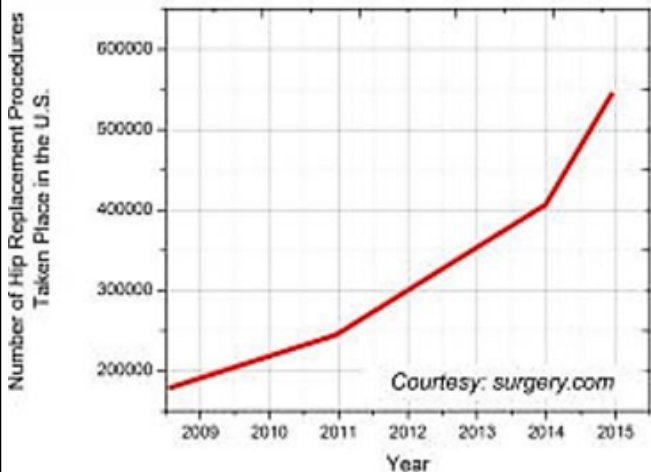
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Research Background and Objectives:

Disability is a complex multidimensional challenge and it can substantially limit major life activities of person. For instance, it is estimated that in KSA, 3.73% of the population has functional disabilities, which limit their independence. One of the most prominent application areas for biomaterials is for orthopedic implant devices. Both osteoarthritis and rheumatoid arthritis affect the structure of freely movable (synovial) joints, such as the hip, knee, shoulder, ankle, and elbow.

Disability Survey 2017, <https://www.stats.gov.sa/sites>



Assistive devices and Technology to Facilitate Activities :Overview of personnel research collaborations

1.Design Optimization and Integrated Simulation Analysis of a Cable-Driven Ankle Rehabilitation Robot [M.F.Ijaz et al.](#), *JDR*. 2023. Vol. 2(2):89-99. DOI: 10.57197/JDR-2023-0027

2.A prospective Outlook on the development of exoskeletal knee joints for Prostheses via a Design Concept evaluation Approach [M.F.Ijaz et al.](#), *JDR*. 2023. Vol. 2(1):47-62. DOI: 10.57197/JDR-2023-0006

3.Supervised Machine Learning to Predict Drilling Temperature of Bone [M.F.Ijaz et al.](#), <https://doi.org/10.3390/app14178001>

4.Correlation between Postural Stability and Lower Extremity Joint Reaction Forces in Young Adults during Incline and Decline Walking [M.F.Ijaz et al.](#), <https://doi.org/10.3390/app132413246>

5. Design of an After-Fall-Assistive Device for Elderly Patients by Finite Element Methods DOI: 10.14293/PR2199.000172.v2

6. The Development of Rehabilitation Orthotic Walker with a Real Time Visual Feedback System of the Gait Symmetry

6. Finite Element Modelling of a Synthetic Paediatric Spine for Biomechanical Investigation [M.F.Ijaz](#) <https://doi.org/10.3390/ma16134514>

6. Stability Analysis of Plate—Screw Fixation for Femoral Midshaft Fractures [M.F.Ijaz](#) <https://doi.org/10.3390/ma16175958>

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