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Website: International Conference on Engineering, Natural and Social Sciences (icensos.com)				Submission ID 183	2025	08	10-11	Konya : Turkey 6TH INTERNATIONAL CONFERENCE ON ENGINEERING, NATURAL AND SOCIAL SCIENCES	Strain-based finite element analysis of functionally graded circular and skew plates	05

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CERTIFICATE



PARTICIPATION

Taqiyeddine Assas

has participated in 6th International Conference on Engineering, Natural and Social Sciences ICENSOS 2025
August 10 – 11 in 2025 at Konya/Turkey.

PAPER TITLE

*Strain-based finite element analysis of functionally graded circular
and skew plates*

PRESENTATION TYPE

Oral



ICENSOS 2025 PROGRAM					
Session 1.1			10 AUGUST 2025 09:00-11:00		
P.-NO	Time Interval	Title	Author Names	Country	Submission ID
Y-1	09:00-09:10	Bridging Engagement and Competence: Insights from Albania's Level 1 and 2 Kangaroo Participants	Ledia Subashi, Florion CelaTedis Ramaj	Albania, Albania, Albania	Submission 190
Y-2	09:10-09:20	Non-Invasive Brain Stimulation Techniques in Neurological and Psychiatric Disorders: Mechanisms, Applications, and Future Directions	Orjon Rroji	Albania	Submission 204
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Y-7	10:00-10:10	Experimental Analysis of Gating Desing for Rapid Investment Casting of Aluminium Dies	Muhammad Shehbaz, Muhammad Sajid	Pakistan, Paksitan	Submission 341
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ICENSOS 2025



6th International Conference on Engineering, Natural and Social Sciences ICENSOS 2025

August 10-11, 2025: Konya, Turkey

Abstract Book

ABSTRACT BOOK OF 6TH INTERNATIONAL CONFERENCE ON ENGINEERING, NATURAL AND SOCIAL SCIENCES ICENSOS 2025

ABSTRACT BOOK OF 6TH ICENSOS 2025:

10-11 August 2025

Konya, Turkey

Publication date: 20.08.2025

Publisher: All Sciences Academy

Abstract Book of 6th International Conference on Engineering, Natural and Social Sciences ICENSOS 2025

<https://www.icensos.com/>

6th International Conference on Engineering, Natural and Social Sciences ICENSOS 2025: edited by All Sciences Academy.

ISBN: 978-625-5794-00-0

As this is a serial book published, it has ISBN. All abstracts were peer reviewed.

ISBN 978-625-5794-00-0

Printed in the Turkey with ISBN 978-625-5794-00-0

International Conference Website

<https://www.icensos.com/>

INTRODUCTION

We had the great honor of 6th International Conference on Engineering, Natural and Social Sciences ICENSOS 2025. It was truly a great pleasure for us to greet a lot of participants from many different countries attending ICENSOS 2025! We firmly believe that the conference will become an important international event in the field of cross-industry discussion about innovations in Academic Studies.

Three cooperating organizations supported the two-day conference. There were 265 papers accepted for presentation at ICENSOS 2025, contributed from different countries. We had plenary speeches and several well-known scientists and experts, to give invited talks at different sessions.

The purpose of ICENSOS 2025 was to provide a forum for the participants to report and review innovative ideas, with up-to-date progress and developments, and discuss novel approaches to the application in the field of their own research areas and discuss challenges of doing science.

We sincerely hope that the exchange of ideas on doing research, science and improving education will help the participants, and international cooperation sharing the common interest will be enhanced.

On behalf the Organization Committee of ICENSOS 2025, we would like to heartily thank our cooperating organizations for all they have done for the conference. We would also like to thank the authors for their contribution to the proceedings; the participants and friends of ICENSOS 2025, for their interest and efforts in helping us to make the conference possible; and the Editorial boards for their effective work and valuable advice, especially the ICENSOS 2025 secretariat and the ICENSOS 2025 staff, for their tireless efforts and outstanding services in preparing the conference and publishing the Proceedings.

Publisher: All Sciences Academy

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Strain-based finite element analysis of functionally graded circular and skew plates

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Abstract – In this paper, an efficient and simple quadrilateral finite element based on strain-based approach is presented for free vibration and static analysis of functionally graded material (FGM) circular and skew plates. Unlike other high-order shear deformation theories, the number of unknowns has been reduced to five by using the condition of zero transverse shear stress at the free top and bottom surfaces of the FG plate and by the assumption that the transverse shear strains are sinusoidal distributed through the thickness. without using shear correction factors. The mechanical properties of functionally graded material are assumed to vary according to a power law distribution of the volume fraction of the constituents. The concept of the physical neutral plane is introduced to avoid membrane-bending coupling. The total potential energy principle and the kinetic energy are used to derive the elementary rigidity and mass matrices. Comparison studies are performed to verify the validity of present results. The effects of loading conditions and variations of power of functionally graded material, modulus ratio, aspect ratio, and thickness ratio on the on the plate behavior are investigated and discussed.

Keywords – Finite element; Static; Free vibration; Strain-based; High-order shear deformation; FGMs