



### **Ghazi Asmar**

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## **Biography**

Ghazi Asmar has been the Assistant VP for Research & Graduate Studies since October 2013.

Dr. Asmar holds a Ph.D. degree and an M.S. degree in Mechanical and Aerospace Engineering, both from the University of Missouri, and a BS degree in Civil Engineering from the University of Washington.

He is a Professor of Mechanical Engineering and teaches courses in the field of solid and structural mechanics, and vibrations. His main research interests include the stress analysis of composite plates containing multiple holes of various shapes, as well as the behavior of metal and plastic gears subjected to torsional loads.

## **Peer-reviewed Journals**

### **International**

- Jabbour T., Asmar G., Abdulwahab M., and Nasr J., "Real Contact Ratio and Tooth Bending Stress Calculation for Plastic/Plastic and Plastic/Steel Spur Gears", *Mechanics and Industry*, 2021, 22, 30, pp. 1-17.
- C. Ghnatios, G. Asmar, E. Chakar, and C. Bou Mosleh, "A reduced-order model manifold technique for automated structural defects judging using the PDG with analytical validation", *Comptes Rendus Mécanique*, Vol. 347, Issue 2, pp.101-113, 2019.
- Jabbour T., & Asmar G., "Tooth Stress Calculation of Metal Spur and Helical Gears", *Mechanism and Machine Theory*, 2015, 92, pp. 375-390.
- Jabbour T., Asmar G. Abdelwahab M., & Rammal H., "Effect of Gear Parameters on the Stress in Metal Helical Gears", *Int. Journal of Theoretical and Applied Mechanics*, Vol. 1, pp. 35-50, 2012.
- Jabbour, T., & Asmar, G., "Stress Calculation for Helical Plastic Gears under Real Transverse contact Ratio", *Mechanism and Machine Theory*, 44 (12), pp.2236-2247, 2009.
- Asmar, G., & Jabbour, T., "Stress Analysis of Anisotropic Plates Containing Rectangular Holes", *International Journal of Mechanics and Structures*, Vol.2, No 1, pp. 51-76, 2007.
- Jabbour, T., & Asmar, G., "A Multistate Feature-Based Assembly Model", *International Journal of Product Development*, Vol. 3. No ¾, pp. 388-403, 2006.

## **Peer-reviewed Conference Proceedings**

### **International**

- C. Ghnatios, A. Rustom, G. Asmar, & E. Chakar. "A reduced order model based manifold technique for automated defect judging, application to structural holes", 29th IEEE international conference on microelectronics (ICM2017), Beirut (Lebanon), December 2017.

- Rahme, P., Bou-Mosleh, C., Asmar, G., & Lachaud, F., "Numerical Model for Composite Laminates with Ply Drop in Compression", LAAS'14 International Scientific Conference, Beirut, 2014.
- Asmar, G., Chakar, E., & Jabbour, T., "Some Unexpected Results in the Stress Calculation Around Multiple Holes in an Isotropic Plate Under In-Plane Loads", 12th Biennial ASME Conference on Engineering Systems Design and Analysis, ESDA2014-20608, Copenhagen, 2014.
- Chakar, E., & Asmar, G., "Resonant Mode Suppression in a Vibratory System: Application to Earthquake Engineering", LAAS 17th International Scientific Conference which was held at the Université Saint-Esprit de Kaslik (USEK), November, 2010.
- Asmar, G., & Chakar, E., "Stress Analysis of an Isotropic Plate Containing Three Aligned Circular Holes under In-Plane Symmetric Loading", 10th Biennial ASME Conference on Engineering Systems Design and Analysis, ESDA2010-25213, pp. 351-358, Istanbul, Turkey, 2010.
- Asmar, G., & Chakar, E., "Analysis of an Isotropic Plate Containing Three Identical Circular Holes Arranged in a Triangular Configuration", Proceedings of the International Conference on Advances in Computational Tools for Engineering Applications, NDU, Lebanon, pp. 62-67, 2009.
- Jabbour, T., Asmar, G., & Ghaith, C., "Analysis of Plastic Helical Gears", Proceedings of the 8th Biennial ASME Conference on Engineering Systems Design and Analysis, Torino, Italy, July, 2006.
- Jabbour, T., & Asmar, G., "A Concurrent Engineering Approach for the Integration of the Function of Design, Manufacture and Assembly", International Mechanical Engineering Conference (IMEC), Kuwait, pp. 1-13, 2004.

## CV

<http://www.ndu.edu.lb/Library/Assets/Files/Documents/NDUFacultyProfiles/NDUFacultyCVs/Ghazi%20Asmar.pdf>