

Curriculum Vitae

▣ Personal data:

Name : Abdelrasoul M. M Gadelmoula

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Mobile, Ext. : Mobile +966550611054
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Citizenship : Egyptian

Birth Date : May 20th, 1976

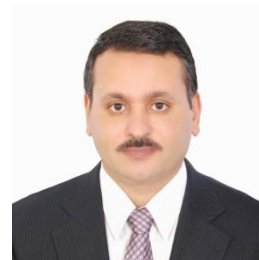
Marital Status : Married (have two daughters and son)

Webpage (1) : <https://faculty.mu.edu.sa/agadelmoula>

Webpage (2) : http://www.aun.edu.eg/membercv.php?M_ID=853

Google Scholar link : <https://scholar.google.com.eg/citations?hl=en&user=I2Chc14AAAAJ>

Research Gate link : https://www.researchgate.net/profile/Abdelrasoul_Gad



▣ Current Position

Associate Professor

Department of Mechanical and Industrial Engineering,
 Majmaah University, Al-Majmaah, KSA.

▣ Education

PhD in Mechanical Engineering, July 2008

School of Mechanical Engineering, Yonsei University, Seoul 120-749, South Korea.

Thesis title: Axial Vibration Suppression of a High Speed Rotating Flexible Disk Using a Flat-type Rotating Stabilizer.

Supervisor: Prof. Yoon Chul Rhim

MSc. in Mechanical Engineering, July 2004

Department of Mechanical Engineering, Assiut University, Assiut 71516, Egypt.

Assiut University, Assiut 71516, Egypt

Thesis title: Study of Parameters Influencing Design Factors of Oil-Lubricated Herringbone Grooved Journal Bearings.

Supervisor: Prof. Abo Bakr M. Nasr, Prof. Aboel Makarem A. Khalil, Prof. Mahmoud M. Nemat-Allah.

BSc. in Mechanical Engineering, May 2000

Department of Mechanical Engineering, Assiut University, Assiut 71516, Egypt.

Project title: Design and Production of Semi-conical Metal Shells using Maslennikov's Process.

Supervisor: Prof. Mohamed Gad Al-Sebaie

▣ Academic record

- February 2017 ~ Now : Associate Professor, Majmaah University, KSA.

- May 2016 ~ Now : Associate Professor, Assiut University, Egypt

- Nov. 2014 ~ May 2016 : Assistant Professor, Assiut University, Egypt

- Nov. 2012 ~ Nov. 2014 : JSPS Postdoctoral fellow, The University of Tokyo, Japan

- March 2010 ~ Nov. 2012 : Assistant Professor, Assiut University, Egypt

- Sep. 2008 ~ March 2010 : Postdoctoral Fellow, CISD, Yonsei University, South Korea

- March 2005 ~ July 2008 : Researcher and Teaching Assistant (Yonsei University- South Korea)

- June 2004 ~ February 2005 : Assistant Lecturer (Assiut University-Egypt)

- December 2001 ~ June 2004 : Researcher and Teaching Assistant (Assiut University- Egypt)

▣ Research interests

- Design of foil bearings
- Fluid-structure interaction
- Hydrodynamic/thermoelastohydrodynamic lubrication
- Rotordynamics analysis
- Flow-induced vibrations
- Computational Fluid Dynamics
- Next generation flexible optical disks
- Additive manufacturing

▣ Awards and honors

- ⇒ Japan Society for the Promotion of Science (JSPS) fellowship, FY2012.
- ⇒ Marquis WHO's WHO in the World Award, 27th Edition, 2010.
- ⇒ HRD Program for Nano/Micro Mechanical Engineering Award, February 2009.
- ⇒ Asia/Pacific Data Storage Conference APDSC08, Outstanding Poster Award.
- ⇒ BK21 (Brain Korea) Fellowship, August 2008.
- ⇒ Korea Research Foundation (KRF) Fellowship, March 2006.
- ⇒ Yonsei University Graduate Scholarship (as an International Student), March 2005.
- ⇒ Top Student Award in Mechanical Engineering, Egypt Engineering Syndicate, 2001.

▣ Scientific and professional memberships

- ASME (American Society of Mechanical Engineers) member since 2009.
- SISS (Society of Information Storage Systems) member, South Korea.
- EGS member (Egypt Engineering Syndicate)

▣ Research Experience

- Additive manufacturing techniques with FDM and SLS.
- Design of bump-type foil bearings for high speed turbomachinery applications.
- Fluid-structure interaction applied for the design of next generation high-speed flexible optical disk system (FODs) for broadcast archival data storage.
- Design of the herringbone-grooved bearings for the hard disk drive (HDD) spindle motor.
- Design of spiral grooved thrust bearings.
- Design of hydrodynamic, aerodynamic, hydrostatic, and elasto-hydrodynamic bearings for various engineering applications.
- Performing noise and vibration measurements using LDV, FFT, Laser Gap sensors, Function generator, and Digital oscilloscope.
- Performing numerical simulations with FDM, FVM using FORTRAN programming language.

▣ Teaching Experience

1- Under graduate courses

| | |
|--------------------------------|------------------------------------|
| Mechanics of Materials | : Majmaah University, Saudi Arabia |
| Mechanical Design | : Majmaah University, Saudi Arabia |
| Design of Machine Elements | : Majmaah University, Saudi Arabia |
| Mechanical Engineering Drawing | : Majmaah University, Saudi Arabia |
| Senior Design Project | : Majmaah University, Saudi Arabia |
| Engineering Numerical Analysis | : Yonsei University, South Korea |
| Mechanical Vibrations | : Assiut University, Egypt |
| Machine Design | : Assiut University, Egypt |
| Mechanics of Machinery | : Assiut University, Egypt |

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|----------------------------------|------------------------------|
| Stresses Analysis | : Assiut University, Egypt |
| Metal Forming | : Assiut University, Egypt |
| Machine Drawing and Construction | : Assiut University, Egypt |
| Robotics and Automation | : Assiut University, Egypt |
| Mechanical Engineering Lab. | : Assiut University, Egypt |
| Ethics of Engineering Profession | : Assiut University, Egypt |
| Design of Machine Elements | : Al Azhar University, Egypt |
| Theory of Metal Cutting | : Sohag University, Egypt |

2- Graduate courses:

| | |
|---------------------------------------|----------------------------------|
| Fluid-Structure Interaction | : The University of Tokyo, Japan |
| Advanced Lubrication Theory | : Assiut University, Egypt |
| Advanced topics in biomechanics | : Assiut University, Egypt |
| Welding inspection | : Assiut University, Egypt |
| Advanced topics in welding technology | : Sohag University, Egypt |
| Casting technology | : Sohag University, Egypt |

3- Students' graduation projects:

| # | Project title | Academic year | Students |
|---|--|---------------|---|
| 1 | Design and production of a vacuum drying unit for fruit juice. | 2010 / 2011 | 4 students, Design and Production Engineering, Assiut University. |
| 2 | Design and production of a spray drying unit. | 2011 / 2012 | 15 students, Design and Production Engineering, Assiut University. |
| 3 | Enhancing the extraction efficiency of cane sugar | 2015 / 2016 | Sugar Technology Research Institute, Assiut University. |
| 4 | Design and manufacturing of a cylindrical configuration robot for handling hazardous chemicals | 2016 / 2017 | 2 students, Department of Mechanical and Industrial Engineering, Majmaah University, Saudi Arabia |
| 5 | Design and fabrication of passive-type assistive exoskeleton for lower limb | 2018/2019 | 1 student, Department of Mechanical and Industrial Engineering, Majmaah University, Saudi Arabia |

▣ Languages

| | |
|---------|---------------------------------|
| Arabic | : Native Language |
| English | : Read, Write, Speak (fluently) |

▣ Selected Publications

Journal Articles:

- [1] **Abdelrasoul M. Gadelmoula** and Saleh A. Aldahash, "Effects of Fabrication parameters on the properties of parts manufactured with selective laser sintering: application on cement-filled PA12," *Advances in Materials Science and Engineering*, Volume 2019, Article ID 8404857.
- [2] Mohamed Adel, Osama Abdelaal, **Abdelrasoul Gad**, Abu Bakr Nasr, AboelMakaram Khalil, "Polishing of fused deposition modeling products by hot air jet: Evaluation of surface roughness," *Journal of Materials Processing Technology*, 2018; Vol. 251: pp. 73-82
- [3] **Abdelrasoul M. Gad**, "On the performance of foil thrust bearing with misaligned bearing runner," *Journal of Industrial Lubrication and Tribology*, Vol. 69, Issue: 2; pp.105-115; doi: 10.1108/ILT-11-2015-0177
- [4] **Abdelrasoul M. Gad** and Shigehiko Kaneko, "Tailoring of the Bearing Stiffness to Enhance the Performance of Gas-Lubricated Bump-Type Foil Thrust Bearing", *Proc IMechE part J: Journal of Engineering Tribology*, Vol. 230 (5), pp. 541 - 560
- [5] **Abdelrasoul M. Gad** and Shigehiko Kaneko, "Performance characteristics of gas-lubricated bump-type foil thrust

- bearing," Proc IMechE part J: Journal of Engineering Tribology, 2015; Vol. 229 No. (6): pp. 746–762.
- [6] **Abdelrasoul M. Gad** and Shigehiko Kaneko, "A New Structural Stiffness Model for Bump-type Foil Bearings: Application to Generation II Gas Lubricated Foil Thrust Bearing," ASME Journal of Tribology, 2014; Vol. 136 No. (4): 041701-1~041701-13.
- [7] Ki Wook Song, **Abdelrasoul M. M. Gad**, and Yoon Chul Rhim, "Design of a curved stabilizer with damping orifices for reducing axial run-out of flexible optical disks", Journal of Microsystem Technol, (2011) 17: 991-996.
- [8] **Abdelrasoul M. M. Gad** and Yoon Chul Rhim, "Towards a Flat Rotating Flexible Disk for High Speed Optical Data Storage", Japanese Journal of Applied Physics, JJAP, Vol.49 (2010), 08KC01.
- [9] **Abdelrasoul M. M. Gad** and Yoon Chul Rhim, "Passive Damping of the Axial Run-out for High Speed Rotating Flexible Disk Using the Idea of Damping Orifice", Japanese Journal of Applied Physics, JJAP, Vol.49 (2010), 08KC03.
- [10] **A. M. Gad** and Y. C. Rhim, "Axial Run-out of a Spinning Flexible Disk Close to Rotating Rigid Wall", IEEE Transactions on Magnetics, Vol. 45, No. 5, 2186 - 2189, May 2009.
- [11] M. Nemat-Alla, **A. M. Gad**, A. A. Khalil and A. M. Nasr, "Static and Dynamic Characteristics of Oil - Lubricated Beveled-Step Herringbone Grooved Journal Bearings", ASME Journal of Tribology, Vol. 131, 011701, January 2009. [[Listed in 10 most accessed articles - January 2009](#)]
- [12] **Abdelrasoul M. M. Gad** and Yoon Chul Rhim, "Experimental and Numerical Study on the Dynamic Behavior of a Spinning Flexible Disk close to a Rotating Rigid Wall", Japanese Journal of Applied Physics (JJAP), Vol. 48, No.3, 2009.
- [13] **Abdelrasoul M. M. Gad** and Yoon Chul Rhim, "Numerical Simultaions of a Flexible Disk Rotating Close to a Rigid Rotating Wall", Japanese Journal of Applied Physics (JJAP), Vol. 47, No. 7B (2008), 5835-5841
- [14] **Abdelrasoul M. M. Gad** and Yoon Chul Rhim, " Study of a Flexible Disk Rotating close to a Rigid Rotating Wall Considering Fluid Inertia Effects ", Journal of Sound and Vibration, Vol. 317, 473-489, 2008.
- [15] **A. M. Gad**, M. Nemat-Alla, A. A. Khalil and A. M. Nasr. "On the Optimum Groove Geometry for Herringbone Grooved Journal Bearings", ASME Journal of Tribology, Vol. 128, July 2006, pp (585-593).
- [16] **Abdelrasoul M. M. Gad** and Yoon Chul Rhim, "Experimental and Numerical Study on an Air-Stabilized Flexible Disk Rotating Close to a Rigid Disk", Transactions of the Society of Information Storage Systems (SISS), Vol.5, No.1, March 2009.
- [17] **Abdelrasoul M. Gad**, "Effect of Misalignment on the Durability of Gas-lubricated Foil Thrust Bearing", Journal of Engineering Sciences, Assiut University, Vol. 44, No. (1), 2016.
- [18] Shuaiby M. Shuaiby, M. A. Hassan, Abdel-Badie Sharkawy and **Abdel-Rasoul M. M. Gad**, "A finite Element Model for the Electrical Activity in Human Cardiac Tissues", Journal of Ecology of Health & Environment, 2013; Vol. 1, No. (1): pp. 33-41.
- [19] M. Adel, Osama, **Abdelrasoul Gad**, Abu Bakr, Aboel Makaram, "Enhancing the surface roughness of fused deposition modeling products," Journal of Engineering Sciences, Assiut University, Vol. 45, No. (3), 2017; 324-332.

[International Conferences and Workshops:](#)

1. **Abdelrasoul M. Gad** and Shigehiko Kaneko, "Fluid Flow and Thermal Features of Gas Foil Thrust Bearings at Moderate Operating Temperatures," Proceedings of the 9th IFToM-ICORD 2014, Sep. 22 – 25, Milan, Italy.
2. **Abdelrasoul M. Gad** and Shigehiko Kaneko, "CFD-Based Design and Performance Characteristics of Generation II Foil Thrust Bearing for Microturbomachinery Applications," Proc of ISROMAC-15, Feb 24 - 28, 2014, Honolulu, HI, USA.
3. Ki Wook Song, **Abdelrasoul M. M. Gad**, and Yoon Chul Rhim, "Design of a curved stabilizer with damping orifices for reducing axial run-out of flexible optical disks", 20th annual symposium on information storage and processing systems, Santa Clara, CA, USA, 14-15 June, 2010.
4. **Abdelrasoul M. M. Gad** and Yoon Chul Rhim, "Noise and Vibration Issue in Home Appliances", International Conference of Noise Control in Building and Construction Site, November 23 – 24, 2009, Gwangju, South Korea.
5. **Abdelrasoul M. M. Gad** and Yoon Chul Rhim, "Towards a Flat Rotating Flexible Disk for High Speed Optical Data Storage", Proceedings of the International Symposium on Optical Memory (ISOM 2009), October 4 - 8, 2009, Nagasaki, Japan.
6. **Abdelrasoul M. M. Gad** and Yoon Chul Rhim, "Passive-damping of the Axial Run-out for High Speed Rotating Flexible Disk Using the Idea of Damping Orifice", Proceedings of the International Symposium on Optical Memory (ISOM 2009), October 4 - 8, 2009, Nagasaki, Japan.

7. **Abdelrasoul M. M. Gad** and Yoon Chul Rhim, "Analysis of a Flexible Disk System with Stabilizer", 16th International Workshop on Information Storage Device, December 19, 2008, Jeju-island, Korea.
8. **Abdelrasoul M. M. Gad** and Yoon Chul Rhim, "On the Axial Run-out of a Spinning Flexible Disk Close to a Flat-type Rotating Rigid Wall", Proceedings of the Asia-Pacific Data Storage Conference 2008 (APDSC08), December 15-17, 2008, Jeju-island, Korea.
9. Jong Soo Lee, **Abdelrasoul M. M. Gad**, Jun Ho Seo, and Yoon Chul Rhim, "Stabilizer Design for a Flexible Disk Considering Static Deformation ", Proceedings of the Asia-Pacific Data Storage Conference 2008 (APDSC08), December 15-17, 2008, Jeju-island, Korea.
10. Ki Wook Song, **Abdelrasoul M. M. Gad**, Jun Ho Seo, and Yoon Chul Rhim, "Deformation Analysis of a PC Disk in a Cabinet due to the Pressure Difference ", Proceedings of the Asia-Pacific Data Storage Conference 2008 (APDSC08), December 15-17, 2008, Jeju-island, Korea.
11. **Abdelrasoul M. M. Gad** and Yoon Chul Rhim, "Experimental and Analytical Study on the Dynamic Behavior of a Spinning Flexible Disk close to a Rotating Rigid Wall ", Proceedings of the International Symposium on Optical Memory and Optical Data Storage (ISOM-ODS-2008), July 13-17, 2008, Waikoloa, Hawaii, USA.
12. **Abdelrasoul M. M. Gad** and Yoon Chul Rhim, "Numerical Simultaions of a Flexible Disk Rotating Close to a Rigid Rotating Wall", Proceedings of the International Symposium on Optical Memory (ISOM 2007), October 21-25, 2007, Singapore.
13. **A. M. Gad**, M. Nemat-Alla, A. A. Khalil and A. M. Nasr. "Beveled-Step Herringbone Grooved Journal Bearings", The 7th Production Engineering and Design for Development conference (PEDD7), Ain Shams University, Cairo, Egypt, February 2006.
14. **A. M. Gad**, M. Nemat-Alla, A. A. Khalil and A. M. Nasr." "Static Characteristics of Oil - Lubricated Beveled-Step Herringbone Grooved Journal Bearings", Proceeding of the International Mechanical Engineering Conference and Expo 2004, Kuwait, December 5 – 8, 2004.
15. **A. M. Gad**, M. Nemat-Alla, A. A. Khalil and A. M. Nasr. "Dynamic Characteristics of Oil - Lubricated Beveled-step Herringbone Grooved Journal Bearings", Proceeding of the International Mechanical Engineering Conference and Expo 2004, Kuwait, December 5 – 8, 2004.
16. **A. M. Gad**, M. Nemat-Alla, A. A. Khalil and A. M. Nasr."Influence of Groove Geometry on the Performance of Oil-Lubricated Herringbone Grooved Journal Bearings". Proceeding of the 4th Mansora International Engineering Conference (4th MIEC), April 2004.

Domestic Conferences:

1. **Abdelrasoul M. Gad** and Shigehiko Kaneko, " Prediction of the Elastoaerodynamic Behavior of Compliant Foil Thrust Bearing Using a New Bump Foil Model," Proc. of JSME Dynamics & Design Conference, Fukuoka, Japan , August 26-30, 2013.
2. **Abdelrasoul M. M. Gad** and Yoon Chul Rhim, "Dynamic Behavior of a Spinning Flexible Disk near a Rigid Rotating Stabilizer ", Proceedings of the Society of Information Storgae Systems (SISS), December 18, 2008, Jeju-island, Korea.
3. Jong Soo Lee, **Abdelrasoul M. M. Gad**, Jun Ho Seo, and Yoon Chul Rhim, "Design of a Stabilizer using the Deformation Curve of a Flexible Disk ", Proceedings of the Society of Information Storgae Systems (SISS), December 18, 2008, Jeju-island, Korea.
4. Ki Wook Song, **Abdelrasoul M. M. Gad**, Jun Ho Seo, and Yoon Chul Rhim, "Warping of a PC Disk with High Speed Rotation in a Narrow Cavity ", Proceedings of the Society of Information Storgae Systems (SISS), December 18, 2008, Jeju-island, Korea.
5. **Abdelrasoul M. M. Gad** and Yoon Chul Rhim, "On the Axial Vibration Suppression of a Rotating Flexible Disk Close to a Rotating Rigid Wall", Proceedings of the Society of Information Storgae Systems (SISS), August 21, 2008, Yonsei University.
6. **Abdelrasoul M. M. Gad** and Yoon Chul Rhim, "Numerical Simultaions of a Flexible Disk Rotating Close to a Rigid Wall", Proceedings of the Society of Information Storgae Systems (SISS), August 30, 2007, Yonsei University.

▣ Invited talk

Noise and Vibration Issue in Home Appliances, International Conference of Noise Control in Building and Construction Site, Gwangju, South Korea, Nov. 23 – 24, 2009.

■ Research Projects

- | | | |
|----|--|--------------------------------|
| 1: | Gas Foil Thrust Bearing for Oil-free Micro Turbomachinery Applications | The University of Tokyo, Japan |
| 2: | Next Generation Flexible Optical Disk (FOD) System. | Yonsei University, South Korea |
| 3: | HLDS (Hitachi - LG Data Storage) Noise and Vibration in ODD. | Yonsei University, South Korea |
| 4: | Stabilizer Design for Flexible Optical Disk System. | Yonsei University, South Korea |

■ Research activities as a reviewer:

| # | Journal/Conference |
|---|---|
| 1 | Tribology International |
| 2 | Journal of Fluids and Structure |
| 3 | Journal of Engineering Tribology |
| 4 | JSME Journal of Advanced Mechanical Design, Systems, and Manufacturing (Machine Design & Tribology) |
| 5 | 9 th IFToMM International Conference on Rotor Dynamics, ICORD2014, Sep. 22-25, Milan, Italy. |
| 6 | ASME Pressure vessels & Piping Conference, ASME-PVP-2014, July 20-24, California, USA. |

أنشطة جامعية (جامعة أسيوط – جمهورية مصر العربية):

أولاً: المشاركة في أعمال الجودة و إعداد الكلية للاعتماد:

- منسق برنامج هندسة التصميم الميكانيكي والإنتاج وعضو لجنة الجودة بقسم الهندسة الميكانيكية.
- عضو وحدة الجودة بكلية الهندسة لإعداد ملف الكلية للتقدم للاعتماد الأكاديمي الوطني.
- دعم ومساعدة أعضاء هيئة التدريس في توصيف وإعداد تقارير المقررات بقسم الهندسة الميكانيكية.
- مراجع لمصفوفة البرامج المختلفة في ضوء نواتج التعليم المستهدفة.

ثانياً: المشاركة في عضوية اللجان بكلية الهندسة:

- عضو لجنة فحص جودة الورقة الإمتحانية لقسم الهندسة الميكانيكية. (2010/2011 م)
- عضو لجنة وضع آلية لدراسة وتحليل وتطور أعداد الطلاب الملتحقين بالبرامج ومردودها على البرامج (2010 م)
- عضو لجنة وضع لائحة جديدة لقسم الهندسة الميكانيكية (يوليو 2010 م)
- عضو اللجنة الفنية للأنشطة البيئية بكلية الهندسة (أبريل 2012 م)
- عضو لجنة المختبرات والأجهزة العلمية بكلية الهندسة (من 1 أكتوبر 2015 م ولمدة عام)
- عضو المكتب الإستشاري بكلية الهندسة: شاركت في عدد 5 عمليات استشارية

أنشطة جامعية (جامعة المجمعة – المملكة العربية السعودية):

أولاً: المشاركة في أعمال الجودة والتطوير بقسم الهندسة الميكانيكية والصناعية:

- منسق لجان الجودة والإعتماد الأكاديمي لبرنامج الهندسة الميكانيكية والصناعية من فبراير 2017 وحتى الحصول على الإعتماد الأكاديمي (ABET) في ديسمبر 2017 .
- منسق لجنة التوثيق والأرشفة بقسم الهندسة الميكانيكية والصناعية (2017/2018)
- منسق لجنة التوجيه والتخطيط الإستراتيجي بقسم الهندسة الميكانيكية والصناعية (2017/2018)
- منسق لجنة الخطط الدراسية بقسم الهندسة الميكانيكية والصناعية (2017/2018)

ثانياً: المشاركة أعمال الجودة والتطوير بكلية الهندسة:

- منسق وحدة ضمان الجودة بكلية الهندسة (2017 حتى الآن)
- منسق وحدة شؤون الخريجين بكلية الهندسة (2018/2019)
- عضو لجنة الخطط والبرامج الدراسية بكلية الهندسة (2017 حتى الآن)
- عضو لجنة القيادة والتوجيه لشؤون الجودة بكلية الهندسة (2017 حتى الآن)
- عضو وحدة الإعتماد الأكاديمي بكلية الهندسة (2017/2018)
- عضولجنة التدريب الصيفي بكلية الهندسة (2017/2018)