

CURRICULUM VITA

Name Prof. Dr. Abdelkader Abdelkarim Ibrahim
Birth Date 28 Dec. 1960 - Egypt
Major specialty Mechanical Engineering
Minor specialty Design and production Engineering
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QUALIFICATIONS

- Ph.D.** Mechanical Eng. (production), Carried out in Zagazig University, Egypt, 1990.
- M.Sc.** Mechanical Eng. (production), Zagazig University, 1987.
- B.Sc.** Mechanical Eng. (Production).Zagazig University, with general grade “Excellent with honor degree” MAY 1983.

Current Job

Professor, Mechanical Engineering Department, Shoubra faculty of Engineering, Benha University, Egypt.

EXPERIENCE

• Academic Activities

1 Shoubra faculty of Engineering, Benha university as:

- Teaching assistant, May 1983- Mar. 1987.
- Ass. Lecturer, Mar.1987- Oct.1990.
- Ass. Prof., 1990 - 2003
- Associate Professor, 18 Nov. 2003- June 2013
- Full professor, June 2013- Now

Teaching the following subjects:

- Machine Design..
- Theory of Vibration
- Machine Construction.
- Theory of Machines.
- Engineering Drawing.
- Non traditional machining.
- Engineering metrology.

- Computers.
- Production management and Quality control
- Computer Aided Manufacturing (CAM)
- Computer Numerical Control.
- Maintenance using vibration And computer applications.

2. Benha Higher Institute of Technology, Part time, 1997- 2006

Supervising B.Sc. Projects, and Teaching the following subjects

- Mechanics of machines
- Quality Control

3- Delta Academy for science – Al-Mansoura, Part time. 2002- 2005

Teaching the following subjects

- Production Management
- Operation research 1
- Operation research 2
- System programming
- Management Information System (MIS)
- Project Management

4- Misr University for science & Technology, Faculty of Engineering, Part time, 2nd term 2005

Teaching the following subjects

- Total Quality Management
- Reliability and availability

5. Head of general technical subjects and welding section, Vocational Training Center, Defense, Dubai, 1991:1996

- Supervise workshop layout and machines installation,
- preparing and supervise the courses of different technical seminars,

6. Yanbu Industrial college, Yanbu El-Senaeia, K.S.A. (ABET, and ACBSP Accredited college) , Sep. 2006- July 2012.

- Assistance professor, Teaching the following courses:
 - o Mechanical Design II.
 - o Introduction to manufacturing technology.
 - o Introduction to drafting
 - o Mechanical drafting
- Member of the committee for preparing the training program for 2 years SAFRA Co. students training.
- B.Sc. program Coordinator from Sep. 2007- Feb. 2010.
- Member of the ABET accreditation committee For Associate degree programs 2007/2009, and B.Sc. program 2008/2010.
- Head of Quality assurance and Accreditation Department. Feb. 2010- July 2012.
Responsible for the following accreditation:

7. Colleges and Institutes Sector at Yanbu, Royal Commission for Jubail and Yanbu, KSA

- Head of Quality assurance and Accreditation (July 2012-July 2013)

• **Practical Activities**

1. Design and planning manager, Misr Trailer Co., 1983:1987 with the following activities:

- Planning and layout of the factory, Supervise all steel construction processes
- Design and supervise the production for the prototypes of the trailers, semi-trailers, tippers, low bed trailers.

2. Member of the Consultation group For Midequip Co. for hospital equipping.1996-1997., as follows:

- Design and supervise the steel construction works, and pre-installation for medical equipment for Sharm El-Sheikh hospital.
- Supervise pre-installation for medical equipment including all mechanical and Electrical works for the following cancer centers: Damanhour center, Domiat Center, El- Menia center, and El-Salam center
- Supervise renewal of the following hospitals: Suize Chest hospital, And Rashid hospital

3- Consultant for International office for engineering and trading, Electrolab Co., Ten TEC Co. Oct. 1999 – Oct. 2000.

4- Consultant for Arab Contractor (Shoubra Branch) 2000 – 2006.

With the following activities:

- Supervise the repair of different cranes
- Design for 3 Axle Tipping Trailer, flat bed trailer, and low bed trailer

5- Consultant for ISO 9001-2000 Qualification for the following Companies:

- Arabic union Co. for Shipment and discharge, Alexandria, 2001.
- Egyptian Co. for general storehouses, Alexandria, 2002.

Attendance for the following courses:

1-Computer Numerical Control (CNC) machines (6 days course Theoretical and practical) By EMCO CO. (Austeria), Dubai. Jan. 1989.

2-Vibration and Noise Measurement Analysis, By Bruel & Kjaer Co. , Demark, June 1989.

3- Successfully attendance For ISO 9001-2000 Transition course, By AGA Ltd IRCA, Cairo Aug.2001

4- Teaching Techniques in the University”, Benha University, Oct. 1990.

5- The use of technology in teaching (3 weeks course), Faculty of Engineering, Benha

university , Mar 2006

- 6- Development of staff member's capabilities training courses (3 courses), Benha University, July- Aug., 2006.
- 7- Development of staff member's capabilities training courses (1 course), Benha University, Aug., 2007.

PUBUSHED BOOKS:

1. An Introduction to Workshop Technology, 1988.
2. Engineering Drawing (part I), 1990.
3. Engineering Drawing (part II), 1991.
4. Theory of Vibration, 2001.
5. Mechanical Engineering Design, 1999.
6. Operation Research (1) 2002.
7. Operation Research (2) 2003.
8. Production Management 2003.
- 9- Production Management, 2004
- 10- Operating system fundamentals, 2005.
- 11- Office software packages, 2006.

PUBUCATIONS

1. M. S. Hamed, Y. A. Mashad, **A. A. Ibrahim** "*Correlation Between vibration Measurement and Surface Quality In Grinding Operation*", Eng. Res. Journal of EL-Mataria faculty of Eng., Helwan university, vol.11, PP (144-158), Mar.1989, Cairo, Egypt.
2. **A. A. Ibrahim** "*Studying The Effect of underlying Processes The Finishing Process*", Eng. Res. Journal of EL-Mataria faculty of Eng., Helwan university, vol.3, PP (70 - 77), Mar.1995, Cairo, Egypt
3. **A. A. Ibrahim**, S. A. Elkady, T. M. Tawfik "*Theory of Surface Production in Electrochemical Grinding*", Eng. Res. Journal of EL-Mataria faculty of Eng., Helwan university, vol.3, PP (78-85), Mar.1995, Cairo, Egypt
4. **A. A. Ibrahim** "*The Effect of Specimen Preparation on The Machinability*" , 22nd international conference on computers and industrial engineering , American university, PP(248-251), Dec 1997, Cairo, Egypt.
5. **A. A. Ibrahim** "*A Study For Roundness Error In The Cylindrical Plunge Grinding*" 22nd international conference on computers and industrial engineering , American university, PP(503-506), Dec 1997, Cairo, Egypt.
6. **A. A. Ibrahim** "*The Wheel-Work Interference in the cylindrical plunge grinding*" 8th INT. AMME conference , PP(321-328) 12-14 May. 1998,. Cairo, Egypt.
7. **A. A. Ibrahim** "*The Roundness Error In Cylindrical Plunge Grinding (Causes And Cures)*" 8th INT. AMME conference , PP(329-337) 12-14 May. 1998, Cairo, Egypt.

8. **A. A. Ibrahim**, A. M. A. Soliman, and H. A. Housin “ *Influence of Workpiece Support on the Generated Surf ac in Turning* “ , Procd. Of Conference Intelligent Systems in Design and Manufacturing III, Part of SPIE’S Intelligent Systems and Smart Manufacturing, Paper No. 4192-62, Boston, Nov.-2000, USA.
9. Saber M. Abd-Rabbo, and **A. A. Ibrahim** “ *Theoretical and Experimental Investigation Into An Axial vibration During Turning*” Bulletin of the Faculty of Engineering, Minia University, Vol 20 No. 2, PP(23-31), Jan 2002, Egypt.
10. **A. A. Ibrahim**, and M. H. EL-AXIR “ *An Investigation into oblique Turning for Mild Steel with Two Different Workpiece Support using RSM*” The second Minia International Conference for Advanced Trends In Engineering, PP(1134-1144), 7-9 April 2001, Egypt.
11. M. Abdel Mohsen, **A. A. Ibrahim**, F. S. Ahmed, and M. M. Okasha " *Machined Surface Characteristics Produced By Electrochemical Grinding* " Sci. Bull. Fac. Eng. Ain Shams Univ. Vol.37, No.4, December 2002, Egypt.
12. M. H. EL-AXIR and **A. A. IBRAHIM** " *Some Surface Characteristics Due To moving Rest Ball Burnishing* " 3rd Assiut International Conference on Mechanical engineering Advanced Technology for Industrial Production (MEATIP3), PP(382-391), 24-26 Dec. 2002, Assiut, Egypt.
13. M. H. EL-AXIR and **A. A. IBRAHIM** " *Some Surface Characteristics Due To Center Rest Ball Burnishing* " Al-Mansoura engineering Journal, June 2003, Egypt.
14. **A. A. Ibrahim**, Saber M. Abd Rabbo, and Yehia El- Mashad " *Fuzzy Knowledge Base Controller to Comensate The Roundness Error in The Cylindrical Plunge Grinding* " Al-Mansoura engineering Journal, June 2003, Egypt.
15. El-Axir, M. H., and **Ibrahim, A. A.**, “ *Some surface characteristics due to center rest ball burnishing*”, J. Materials Processing Technology. 167(1), pp(47-53.) , 2005.
16. **A. A. Ibrahim** " *An investigation into ball burnishing process of carbon steel on a lathe* " AL-AZHAR ENGINEERING TENTH INTERNATIONAL CONFERENCE, December 24-26, 2008, Egypt.
17. **A.A. Ibrahim**, S.M. Abd Rabbo, “ *ROUNDNESS ERROR COMPENSATION IN TURNING USING FUZZY LOGIC*”, Engineering Research Journal of EL-Matardia faculty of Eng., Helwan university, VOL. 102, PP (M 22-M35), December 2005, Cairo, Egypt.
18. **A.A. Ibrahim**, S.M. Abd Rabbo,, M.H. El-Axir, A.A. Ebied, “ *Center rest balls burnishing parameters adaptation of steel components using fuzzy logic*”, Production Engineering & Design for Development, PEDD7, February 7-9, 2006, Cairo, Egypt
19. **A.A. Ibrahim**, S.M. Abd Rabbo,, M.H. El-Axir, A.A. Ebied, “ *Center rest balls burnishing parameters adaptation of steel components using fuzzy logic*”, journal of materials processing technology , 2009, pp. 2428–2435, 2009 .
20. **A.A. Ibrahim**, “ *IMPROVING ROUNDNESS ERROR IN THE CYLINDRICAL PLUNGE GRINDING USING AI TECHNIQUE*” Engineering Research Journal of EL-Matardia faculty of Eng., Helwan university, VOL. 117, PP (M 124-M142), June 2008, Cairo, Egypt.

21. **A. A . Ibrahim**, F. S. Ahmed, K. ELshazly, S. Samir, **"EFFECT OF CUTTING CONDITION IN TURNING ON FATIGUE BEHAVIOR OF 0.12% CARBON STEEL"**, Fourth Assiut University Int. Conf. on Mech. Eng. Advanced Tech. For Indus. Prod., (MEATIP4), pp(578-589), December 12-14 (2006).
22. **A.A. Ibrahim**, **"Fatigue Life Enhancement of Carbon Steel By Ball Burnishing Process"**, Mansoura Engineering Journal (MEJ), Vol..33 ,No. 2, pp(M.1-M.9), June 2008, Egypt
23. Z. M. Yehia, **A. A. Ibrahim**, I. M. Ibrahim, R. A. Mahmoud , **"Effect of Niobium Addition on Stamping Tool Steel Properties"**, Engineering Research Journal, Faculty of Engineering Shebin El-kom, Menoufia University, Vol. 32, No. 1 January 2009, Egypt.
24. **A.A. Ibrahim** , S. M. Abd-elrahman, M. Z. Zahran, and H. H. El-Mongy, **"AN INVESTIGATION FOR MACHINERY FAULT DIAGNOSIS USING ADAPTIVE WAVELET ANALYSIS"**, Sixth Jordanian International Conference, Paper No. 5, CD, October 22-24/2007, Paper No. 5, Amman, Jordan.
25. **A.A. IBRAHIM** , S. M. Abd-elrahman, M. Z. Zahran, and H. H. El-MONGY, **"An experimental investigation for gear fault diagnosis using adaptive wavelet analysis of vibration signals"**, Bulletin of Faculty of Engineering, Faculty of Engineering, Menia University, Vol. 26, No. 2, July 2007, Egypt.
26. YASIR A. HADI, SAJI VARGHESE and **A. A. IBRAHIM** **"EFFECTS OF MACHINING PARAMETERS IN TURNING ON ROUNDNESS ERROR OF MACHINED COMPONENTS"**, International Journal of Materials Engineering and Technology Volume 2, Issue 1, pp. 55-68, 2009.
27. **A. A. Ibrahim**, S. M. Abdrabbo, H. Gheith , M. Abd El-Salam, and M. El-Samanty, **"Online Tool Wear Monitoring In Turning Using Vibration Analysis And Artificial Neural Network"**, Ain Shams Journal of Mechanical Engineering (ASJME),Vol. 2, pp.201-212, October, 2009.
28. S. M. ABDRABBO, **A. A. IBRAHIM**, **"SURFACE TEXTURE OPTIMIZATION IN TURNING PROCESS BASED ON RSM AND GENETIC ALGORITHMS "**, Minia Journal of Engineering and Technology, (MJET), Vol. 29, No. 1, pp. 86- 100, January 2010.
29. S. M. Abdel-Rahman, **A.A. Ibrahim** , and H. H. El-Mongy **"Rolling-Element Bearing Fault Diagnosis using Adaptive Wavelet Analysis of Vibration Signals"**, Engineering Research Journal, Faculty Engineering, Mataria, Helwan University, Vol.125, pp. M25-M41, March 2010.
30. **A. A. IBRAHIM** , **"An Investigation for Surface Integrity of Al2O3/A356 Composites Using Roller Burnishing Process on a Milling Machine"**, Applied Mechanics and Materials journal, Vol. 330 (2013), pp 37-44.
Also published and presented in: 4th International Conference on Mechanical, Industrial, and Manufacturing Technologies (MIMT 2013), Bali Island, Indonesia, March 16-17, 2013.

Reviewer for the followings

- 1-Int. Journal of Advanced Manufacturing Technology, Springer (2003- Now).

2- King Abdelaziz City for Science and Technology (KACST) 2011- now.

3-119th ASEE Annual Conference & Exposition!- Spurring Big Ideas in Education- June 10 - 13, 2012- San Antonio, Texas (Reviewed 4 papers.)

- **Training Activities**

Preparing and teaching the following courses:

1. Maintenance using Fault analysis and diagnosis (15 days course Theoretical and practical) for Engineers At Benha Higher Institute of Technology, Aug.1989.

2. Maintenance with On condition monitoring using vibration analysis (5 days course) At Benha Higher Institute of Technology, for the followings:

- Engineers, Jun 1989
- Technicians, Jun. 1989
- Engineers, Sep. 1989.

3-The following courses at Arab management associations, Cairo, and Alexandria 1996- now: Maintenance Management, Engineering metrology, Transportation Management, Quality Control, TQM, Welding Technology, Industrial environment, Technical report writing, Air pollution, Construction project management, Advanced Production Management, Predictive Maintenance, Reverse Engineering and uses in spare parts production.

The above courses were repeated many times, 1996- now

Consultant for the society, Supervise all Technical Seminars, 1996- now

4. The following courses at Kuwait:

- Selection of engineering materials and applications, Oil Company Dec. 1997.
- Industrial Safety, May 1999.

5. The following courses at APROMAC, Cairo:

- Oiling and greasing, Maintenance, Cairo, 2000

6. The following courses at Development center, Cairo:

- Welding Codes, Sep. 2000.
- Corrosion control, Jan 2001.
- Welding Technology Sep. 2001.

7. The following courses at Sadat Academy, Cairo:

- Statistical Quality Control, June 2003
- Project Management, July 2003
- TQM and ISO 9000, Sep. 2003
- Inventory Control using Computer, Mar. 2004.
- Forecasting in feasibility study using Computer, Mar. 2004.

8. The following courses at Alwatania poultry co. – Alkaseem, Saudi Arabia

- Preventive maintenance, Apr. 2006

- Occupational safety, Apr. 2008
- 9- **The following courses at Yanbu continuous education – Yanbu, Saudi Arabia**
 - Project management, Jan. 2008, Apr. 2008
 - Total quality management, Jan. 2008, Apr. 2008

Supervisor The following thesis:

1. MSc Thesis with the title “ Performance of Electrochemical grinding” Faculty of engineering, Zagazig University 1990-1993
2. MSc. Thesis “Mathematical modeling of Electrochemical grinding processes” Faculty of engineering, Zagazig University 1997-2002.
3. MSc Thesis “The usage of system analysis approach in planning the environmental management system”, Institute of environmental studies, Ain Shams University. 1999-2003.
4. MSc. Thesis “Effect of inoculation on the properties of tool steel” Faculty of engineering, Zagazig University 1999-2004.
5. MSc Thesis “Using vibration analysis measurements for fault diagnosis ” Faculty of engineering, Zagazig University 2001-2005
6. MSc Thesis “Fatigue life of machined components ” Faculty of engineering, Zagazig University 2003-2005
7. PhD Thesis " Performance of pulse Electrochemical grinding" Faculty of engineering, Zagazig University 2003-Now
8. PhD Thesis " Effect of electrolyte Temperature on the performance of Electrochemical machining" Faculty of engineering, Zagazig University 2005-Now.
9. MSc Thesis ‘Online Tool Wear Monitoring in Turning using Vibration Analysis” Faculty of engineering, Zagazig University 2004-2008.