



- 1. Name and Academic rank:** Hadi Abou Chakra, Associate Professor, full time
- 2. Education: Degrees, discipline, institution and date:**
 - Ph.D., Process Engineering, University of Surrey, UK, 1998.
 - M.Sc., Structural Engineering, University of Surrey, UK, 1993
 - B.Sc., Civil Engineering, Beirut Arab University, 1988
- 3. Work experience**
 - Beirut Arab University, Chairman of Industrial Engineering & Engineering Management Department, 2009- present, full time
 - Beirut Arab University, Assistant Professor, 2007 – 2009, part time
 - American University of Beirut, Lecturer, 2007 – 2011, part time
 - Modern University for Business & Science (formerly MECAT), Director of Planning and Development, 2003-2007, full time
 - University of Surrey, UK, Senior Research Fellow, 1998 – 2003
- 4. Honors and Awards:**
 - Award in recognition of outstanding applied Industrial Engineering research and exceptional academic service in Lebanon at the 15th Annual Faculty of Engineering and Architecture Student and Alumni Conference at the American University of Beirut, (2016)
 - Best research paper in ChERD the international journal published by the Institution of Chemical Engineers (IChemE), 2001
 - Ph.D. scholarship from the University of Surrey 1993 – 1998
- 5. Service activities**
 - Chairman of Industrial Engineering & Engineering Management Department, BAU, 2009 – present.
 - Acting Chairman of Petroleum Engineering Department, BAU, 2013 – present.
 - Member of the Faculty of Engineering Board, BAU, 2009 – present
 - Member of the Faculty Industrial Advisory Committee, BAU, 2009 – present.
 - Member of the Faculty Accreditation Committee (ABET), BAU, 2012 – present.
 - Scientific visits to various industrial plants in Lebanon
 - BAU representative at Lebanese Industrial Research Achievements (LIRA) program – Ministry of Industry in Lebanon.
 - Member of the Oil and Gas Committee Committee at Order of Engineers and Architects, Lebanon.
- 6. Research Interests**
 - Construction Project Management
 - Process Engineering
 - Particulate Solids
 - Materials Science and Engineering
- 7. International Scientific Activities and Research Cooperation**
 - Project Manager of the Green Energy for Green Companies (GR.ENE.CO.) project 2014.
 - 16 International Conference on Technology Supported Learning & Training, ONLINE EDUCA, Berlin, December 2010.



- First International Conference On Effective Teaching And Learning In Higher Education, AUB, Lebanon December 2010.
- Seminar on “Lifelong Learning for Adults in the Mediterranean Area”, Università degli Studi di Napoli “L’Orientale”, Centro Studi LifeLong Learning. Napoli, July 2010
- Entrepreneurship in Technology Tempus Project No. 511070-TEMPUS-1-2010-1-UK-TEMPUS-JPCR. Brussels, June 2013
- Member of the technical committee of the Particle Systems Analysis Conference 2005, Stratford-upon-Avon, UK.
- Led several research projects to integrate with different sectors of the particulate-based manufacturing industry to design and implement processes that minimize numbers of unresolved particulate solids processing problems. **Industrial Partners:** Unilever, Tate & Lyle, GlaxoSmithKline, Borax, Morgan Advanced Ceramics, RJB Mining, and United Biscuits. 1998 – 2003. University of Surrey, UK

8. National Research Cooperation

1. Joint research cooperation with ZEINI STEEL to design and assess their facility plant. (final year projects), 2010 - present
2. Joint research cooperation with KAMAPLAST plastic industry to design and assess their facility plant. (final year projects), 2010 – 2012.

9. Principal publications and presentations:

9.1 Journal Publications

1. **H. Abou Chakra**, and A. Ashi. Evaluation of Risk Indicators and Techniques in Construction Project Management. Journal of Applied Sciences, Engineering and Technology, volume 14, issue: 5, pp. 170-175, May (2017)
2. **H. Abou Chakra**, A. Tannir, and A.T. Ashi, "Validating the Integration among Project Management Knowledge Areas in Lebanon" International Journal of Innovation, Management and Technology vol. 8, no. 1, pp. 38-42, Feb (2017).
3. **H. Abou Chakra** and M. Machaka. Allocation Solutions for Recycled Municipal waste Aggregates. European Scientific Journal, volume 11, No: 26. September (2015).
4. **H. Abou-Chakra** and R. Fayad. On-Line Quality Control Filtration System Used in Hydraulic Oil Lubrication Process. European Scientific Journal, volume 10, No: 21. July (2014).
5. M. Machaka, H. Basha, **H. Abou Chakra**, and A. Elkordi. Alkali Treatment of Fan Palm Natural Fibres for Use in Fibre Reinforced Concrete. European Scientific Journal, volume 10, No: 12. April (2014).
6. **H. Abou-Chakra** and S.F. Nakhle. The Role of Culture in Ethical Decision Making of Lebanese Managers. Leaders Digest, March (2006).
7. P Chapelle, N Christakis, J Wang, N Strusevich, M K Patel, M Cross, **H Abou-Chakra**, J Baxter, U Tuzun. Application of simulation technologies in the analysis of granular material behaviour during transport and storage. Proceedings of IMechE. Journal of Process Mechanical Engineering, Part E. Volume 219 Number 1, pp43 (2005).
8. **H Abou-Chakra**, P Chapelle, U Tüzün, J Baxter, M K Patel, M Cross, I. Bridle and M.S.A. Bradley. Sampling Issues in Assessing Particle Degradation in Pneumatic Conveying Systems. Particle & Particle Systems Characterization, Vol. 21, Issue 1, pp 39-46 (2004).



9. P Chapelle, **H Abou-Chakra**, N Christakis, I. Bridle, M K Patel, J Baxter, U Tuzun, and M Cross. Numerical Predictions of Particle Degradation in Industrial Scale Pneumatic Conveyors. *Powder Technology*, Vol. 143-144, pp 321-330 (2004).
10. **H. Abou-Chakra**, J. Baxter and U. Tüzün. Three-Dimensional Pseudo Particle Shape Descriptors for Computer Simulation of Non-Spherical Particulate Assemblies. *Advanced Powder Technology*, Vol. 15, No 1, pp 63-77 (2004).
11. P. Chapelle, **H. Abou-Chakra**, N. Christakis, M.K. Patel, M. Cross, A. Abu-Nahar and U. Tüzün. Computational Model for Prediction of Particle Degradation During Dilute Phase Pneumatic Conveying, The Use of a Laboratory Scale Degradation Tester for the Determination of Degradation Propensity. *Advanced Powder Technology*, Vol. 15, No 1, pp 13-29 (2004).
12. P. Chapelle, N. Christakis, **H. Abou-Chakra**, U. Tüzün, I. Bridle, M.S.A. Bradley, M.K. Patel and M. Cross. Computational Model for Prediction of Particle Degradation During Dilute Phase Pneumatic Conveying, Modelling of dilute phase pneumatic conveying. *Advanced Powder Technology*, Vol. 15, No 1, pp 31-49. ISSN 0921-8831 (Print), 1568-5527 (Online) (doi:10.1163/15685520460740052) (2004).
13. **H. Abou-Chakra**, U. Tüzün, I. Bridle, M.C. Leaper, M.S.A. Bradley and A.R. Reed. An investigation of particle degradation by impact within a centrifugal accelerator type degradation tester. *Proceedings of IMechE. Journal of Process Mechanical Engineering, Part E*. Vol. 217, No. 3, pp 257-266 (2003).
14. M.C. Leaper, R.J. Berry, M.S.A. Bradley, I. Bridle, A.R. Reed, **H. Abou-Chakra** and U. Tüzün. Measuring the Tensile Strength of Caked Sugar Produced From Humidity Cycling. *Proceedings of IMechE. Journal of Process Mechanical Engineering, Part E*. Vol. 217, No. 1, pp 41-47 (2003).
15. **H. Abou-Chakra**, U. Tüzün, I. Bridle, M. Leaper, M.S.A. Bradley and A.R. Reed. Assessing the Potential of a Fine Powder to Segregate Using Laser Diffraction and Sieve Particle Size Measuring Techniques. *Advanced Powder Technology*, Vol. 14, No 2, pp 167-177 (2003).
16. N. Christakis, M.K. Patel, M. Cross, U. Tüzün, J. Baxter and **H. Abou-Chakra**. Predictions of Segregation of Granular Material with the aid of PHYSICA, a 3-D Unstructured Finite-Volume Modelling Framework *International Journal for Numerical Methods in Fluids*, Vol. 40, pp 281-291 (2002).
17. M.C Leaper, M.S.A. Bradley, I. Bridle, A.R. Reed, **H. Abou-Chakra**, J.A.S. Cleaver, and U. Tüzün. Constructing an Engineering Model for Moisture Migration in Bulk Solids as a Prelude to Predicting Moisture Migration Caking, *Advanced Powder Technology*, Vol. 13, No 4, pp 411-424 (2002).
18. **H. Abou-Chakra** and U. Tüzün. Microstructural Blending of Coal to Enhance Flowability. *Powder Technology*, Vol. 111, issue 3, pp 200-209 (2000).
19. J. Baxter, **H. Abou-Chakra**, U. Tüzün and B. Mills Lamptey. A DEM Simulation and Experimental Strategy for Solving Fine Powder Flow Problems, *Trans. IChemE*. Vol. 78, Part A, pp 1019-1025 (2000). (This paper has been awarded by the Institution of Chemical Engineers as the best research paper in ChERD the international journal published by the IChemE for 2001.)
20. **H. Abou-Chakra** and U. Tüzün. Coefficient of Friction of Binary Granular Mixtures in Contact with a Smooth Wall PART I: Direct Shear Box Measurements of the Effects of Particle Size Ratio and Particle Surface Roughness. *Chemical Engineering Science* 54, pp 5901-5912 (1999).



21. **H. Abou-Chakra** and U. Tüzün. Coefficient of Friction of Binary Granular Mixtures in Contact with a Smooth Wall PART II: Microstructural Model Describing the Effects of Packing Fraction and Load Distribution on the Wall Friction of Smooth, Elastic Spheres. *Chemical Engineering Science*, 54, pp 5913-5925 (1999).
- **9.2 Papers Book Section**
 1. P. Chapelle, N. Christakis, H. Abou-Chakra, U. Tüzün, I. Bridle, M.S.A. Bradley, M.K. Patel, M. Cross. Computational Modelling of Particle Degradation in dilute phase pneumatic conveyors. In: V. Kumar, M.L. Gavrilova, C.J.K. Tan, P.L. Ecuyer (Eds). *Lecture Notes in Computer Science 2667: Computational Science and Its Applications- ICCSA 2003*, Springer-Verlag Berlin Heidelberg, pp. 493-502, ISBN 3-540-40155-5. (doi:10.1007/3-540-44839-X_53) (2003).
 - **9.3 Conference Proceedings**
 1. R. Fayad and **H. Abou-Chakra**. Predictive Diagnosis System for Machine Faults Based on Vibration Analysis, 1st World Congress on Condition Monitoring (WCCM 2017), London, UK. pp 334. ISBN: 978-1-5108-4475-9 (2017).
 2. **H. Abou Chakra**, A. Tannir, and A. Ashi. Validating the Integration among Project Management Knowledge Areas in Lebanon. 7th International Conference on Construction and Project Management (ICCPM2016). Turku University of Applied Sciences, Turku, Finland (2016)
 3. K. F. Bou Hamdan, R. Harkouss, **H. Abou Chakra**. An Overview Of Extended Reach Drilling: Focus On Design Considerations and Drag Analysis. Gas & Oil International Conference, IEEE Conference Publications Mediterranean, pp1-4. Meshref, Lebanon (2015).
 4. **H. Abou-Chakra** and R. Fayad. Lean Production for a Freezing Potatoes Factory. The 5th International Conference on Industrial Engineering and Operations Management (IEOM), Dubai, UAE. ISBN: 978-0-9855497-2-5 (2015)
 5. **H. Abou-Chakra**, A. Tanir, and A. Ashi. Validating the Integration between Project Risk Management and Project Quality Management in Practice, A case Study of Lebanese Projects. International Conference on Mechanical, Architectural and Civil Engineering, Dubai, UAE (2013).
 6. R. Fayad and **H. Abou-Chakra**. Genetic Algorithm Enhanced Neural Network Applied to Tool Condition Monitoring in Drilling Process, The CM 2013 and MFPT 2013, Krakow, Poland (2013).
 7. **H. Abou-Chakra**. Assessing the Effect of Temperature on Fabric Washing Powder under Stress. 8th International Conference on Applied Mechanics, Materials, and Manufacturing. Muscat, Sultanate of Oman, (2010).
 8. S.F. Nakhle and **H. Abou-Chakra**. The Role of Culture in Ethical Decision Making – The Case of Lebanese Managers, European Academy of Management, EURAM. Paris, France (2007).
 9. S.F. Nakhle and **H. Abou-Chakra**. Transnational Education in Lebanon, the Cultural Effect using Hofstede’s Cultural Dimensions. International Conference on Global Integration of Graduate Programme, GIGP2005. Irkutsk, Russia (2005).
 10. G. Abou Khalil and **H. Abou-Chakra**. Characteristics of the E-learner and Readiness of Lebanese Students for E-learning Experience Conference on Global Integration of Graduate Programme, GIGP2005. Irkutsk, Russia (2005).
 11. **H. Abou-Chakra**, B. Kaissi and A. Al-Soufi. Education with Global Perspective. International Conference on Global Integration of Graduate Programme, GIGP2004. Amman, Jordan, (2004).



12. **H. Abou-Chakra**, J. Baxter, U. Tüzün, P. Chapelle, I. Bridle, F. Farnish, M.S.A. Bradley and A. Reed. Measuring Particle Degradation by Impact Using Bench-Scale tester. 8th International Conference on Bulk Materials Storage, Handling and Transportation. Wollongong, Australia, (2004).
13. I.A. Bridle, M.S.A. Bradley and A.R. Reed, **H. Abou-Chakra**, U. Tüzün., I. Hayati and M.R. Phillips. Non-Segregating Blended Fertilizer Development: A New Predictive Test for Optimising Granulometry. The International Fertilizer Society - Proceeding 547. York, UK, (2004).
14. I. Bridle, F. Farnish, M.S.A. Bradley, A. Reed, **H. Abou-Chakra**, U. Tüzün, P. Chapelle and M.K. Patel. Measuring Rolling Segregation Utilising a Bench-Scale Tester. 8th International Conference on Bulk Materials Storage, Handling and Transportation. Wollongong, Australia, (2004).
15. **H. Abou-Chakra**, J. Baxter, U. Tüzün, P. Chapelle, M.K. Patel, I. Bridle, M.S.A. Bradley and A. Reed. Degradation Toolkit for Predicting Degradation of Particulate Solids in Lean Phase Pneumatic Conveyors. International Conference for Particle Technology, PARTEC 2004, Nuremberg, Germany (2004).
16. R.J. Berry, M.S.A Bradley, A.R. Reed, I. Bridle, **H. Abou-Chakra**, U. Tüzün, and M.C. Leaper. Comparison of Cake Strength Failure Measurements Obtained for Sugar, The 4th International Conference for Conveying and Handling of Particulate Solids (CHoPS), Budapest, pp4.110-4.115 (2003).
17. J. Baxter, T. Gröger, **H. Abou-Chakra**, U. Tüzün, N. Christakis, M.K. Patel, M. Cross. Micro-Mechanical Parameterisation for Continuum Modelling of Granular Material Using the Discrete Element Method. Proceeding of the Fifth World Congress on Computational Mechanics (WCCM), H.A Mang, F.G. Rammerstorfer, J. Eberhardsteiner (Eds), Vienna University of Technology, Austria, ISBN 3-9501554-0-6 (2002),
18. N. Christakis, P. Chapelle, M.K. Patel, J. Wang, M. Cross, J. Baxter, T. Gröger, **H. Abou-Chakra**, U. Tüzün, I. Bridle and M. Leaper. Mathematical Modelling of the Behaviour of Granular Material in a Computational Fluid Dynamics Framework using Micro-Mechanical Models. Proceeding of the Fifth World Congress on Computational Mechanics (WCCM), H.A Mang, F.G. Rammerstorfer, J. Eberhardsteiner (Eds), Vienna University of Technology, Austria, ISBN 3-9501554-0-6 (2002),
19. N. Christakis, P. Chapelle, M.K. Patel, M. Cross, I. Bridle, **H. Abou-Chakra** and J. Baxter. Utilising Computational Fluid Dynamics (CFD) for the Modelling of Granular Material in Large-Scale Engineering Processes. In: P.M.A. Sllot, C.J.K. Tan, J.J. Dongara, A.G. Hoekstra (Eds). Lecture Notes in Computer Science 2329: Computational Science-ICCS 2002, Springer-Verlag Berlin Heidelberg, p. 743-752, ISBN 9783540435914 ISSN 0302-9743 (Print), 1611-3349 (Online) (doi:10.1007/3-540-46043-8_75) (2002)
20. N. Christakis, M.K. Patel, M. Cross, U. Tüzün, J. Baxter and **H. Abou-Chakra**. Continuum Modelling of Granular Flows using PHYSICA, a 3-D Unstructured, Finite-Volume Code. In: M. Cross, J.W. Evans, C. Bailey (Eds) Computational Modelling of Materials, Minerals and Metals Processing, San Diego, CA, TMS, pp.129-138, ISBN 0-87339-513-1 (2001).
21. **H. Abou-Chakra** and U. Tüzün. Effect of Particle Size Distribution on the Handling Properties of Blended Coal. Proceeding of the 7th International Conference on Bulk Materials Storage, Handling and Transportation, Newcastle, Australia, ISBN 0-85825-816-1 (Sep. 2001).



22. **H. Abou-Chakra** and U. Tüzün. Effect of Particle Size Distribution and Surface Moisture on Flow properties of Coal. Proceeding of the International Symposium on Reliable Flow of Particulate Solids III, Porsgrunn, Norway, pp 57-64, ISBN 82-7206-187-2 (Aug. 1999).
23. **H. Abou-Chakra**, U. Tüzün and D. M. Heyes. Effect of Particle Size and Surface Roughness on Wall Friction of Particulate Materials, Proceeding of the 6th International Conference on Bulk Materials Storage, Handling and Transportation, Wollongong, NSW, Australia, pp 79-85, ISBN 185825-696-7 (Sep. 1998).
24. **H. Abou-Chakra**, U. Tüzün and D. M. Heyes. Effect of Particle Size and Surface Roughness on Wall Friction of Particulate Materials, Proceeding of the World Congress on Particle Technology Event, Brighton, UK (June 1998).
25. **H. Abou-Chakra** and U. Tüzün. Wall Friction of Poly-Disperse Particulate Solids, Proceeding of the 1997 Jubilee Research Event IChemE, Nottingham, UK, Vol. 1, pp 565-568, ISBN 0-85295-389-5 (April 1997).