CURRICULUM VITAE

N. M. SHAALAN

Family name:	SHAALAN
Given name:	NAGIH Birth date Feb, 1981
Title	Associate Professor
Languages:	English (very good), Japanese (poor), Arabic (native)
Current Affiliation	-Dept. Material Science and Engineering, School of Innovative Design Engineering, Egypt-Japan University of Science and Technology (E-JUST), Alexandria City, Egypt. -Dept. of Physics, Faculty of Science, Assiut University, 71516 Assiut, Egypt
Field:	Nano and functional materials sciences
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Researchgate:	https://www.researchgate.net/profile/N_Shaalan

MAIN RESEARCH INTEREST

- Synthesis and characterization of nano and functional materials formed by different methods; chemical routes, Chemical vapor and Physical vapor depositions.
- Thin films technology.
- Nano surface coating technology.
- Devices fabrication for sensors, and Photovoltaic cells, thin film solar cells.
- Optical materials.

QUALIFICATIONS

Year	Qualification	Institution
2016	Postdoctoral fellowship	New and renewable energy, Material Science Dept., , Faculty of Engineering Nagoya University
2012	PhD - Materials Sciences	Graduate School of Science and Engineering for Education , University of Toyama, Japan
2007	M.D in Solid state physics	Faculty of Science, University of Assiut
2002	B.Sc in Physics	Faculty of Science University of Assiut

EMPLOYMENT RECORD

Dates (from-to)	Position	Institution
2018-present	Associate Professor	School of Innovative Design Engineering, Faculty of Engineering, Egypt-Japan University of Science and Technology (E-JUST), Alexandria City, Egypt

2016 – 2017	Assistant professor	School of Innovative Design Engineering, Faculty of Engineering, Egypt-Japan University of Science and Technology (E-JUST), Alexandria City, Egypt
2017 – present	Associate Prof.	Faculty of Science- Assiut University , Egypt
2012-2017	Assistant Professor	Faculty of Science- Assiut University , Egypt
2008-2012	Doctoral student and Research assistant	Faculty of Engineering - university of Toyama, Japan
2007-2008	Assistant lecturer	Faculty of Science- Assiut University , Egypt
2002-2007	Instructor	Faculty of Science- Assiut University , Egypt

MEMBERSHIP

- Egyptian Sold State Society
- Scientists Association of Egypt

APPOINTMENTS:

(1) Fulltime Faculty at E-JUST University
(2) Guest editor of Journal of Key Engineering materials.
(3) Editor of MAYFEB for Materials and Engineering Journal.
(4) Coordinator of Physics Dept. Workshop, Assiut University.
(5) Reviewer for "International Conference on Electrical, Computer and Telecommunication Engineering (ICECTE-2016)" at RUET, Rajshahi, Bangladesh 2016.
(6) Coordinator of Assiut University for National Research Lab of Egypt.
(7) Member and founder of organizing committee of International Conference of Materials Science and Engineering: Recent and Advances Challenges 2018

SCIENTIFIC and SOCIAL CONTRIBUTION

(1) Lecturer: Training for "International Theoretical Physics Olympiad – 2017" for Egyptian students, stem schools (Two students have win Silver Medals).
(2) Lecturer: Lectures and training for researchers at center of SEM at Assiut University the use of Electron microscope in nanomaterials.

ACADEMIC HONORS, AWARDS, GRANTS and SCHOLARSHIP

Year	Award/scholarship	institution
2001	Scientific Excellence award	October 6 University , Egypt
2008	MEXT Scholarship	Faculty of Engineering - university of Toyama, Japan
2012	Dean's honorary award	University of Toyama, Japan
2013	PI: Grant 200,000 LE. establishing gas sensing system for various nanomaterials	Assiut University
2014	Member: DeanShip of scientific research (DSR), under grant No. (662-371-D1433), 10,000RS	Abdulaziz University, Jeddah,

2015	Consultant: Deanship of Scientific Research (DSR) grant no. G 347 – 662 – 1436. 70,000 RS	Abdulaziz University, Jeddah,
2016	Member: Development of nanoparticles catalysts supported on graphene for high activity and selectivity Fisher-Tropsch Synthesis of Liquid fuels- ID:NAS+STDF 4543- 200,000 US$	Egypt-Japan University of Science and Technology

EDUCATION CONTRIBUTION

- postdoctoral fellowship for Nagoya University, Japan (Feb. 1, 2016- July 2016)
- Invited talk as visiting professor by University of Toyama, Japan (March 6-14, 2014)
- Teaching for undergraduate students for different physics courses
  * General Physics 1,
  * General Physics 2,
  * Thermodynamics,
  *Waves diffraction and applications ,
  * Electricity and AC current,
  * Electricity and Magnetism,
  * Electronics (1)
- Teaching for post- graduate students for
  * Special topics in nonomaterials characterizations
  * Materials for solar cell devices
  * Thin film technology
  * Wide band-gap semiconductor: Fundamental properties and Devices
  * Active and Sensing Materials
  * Nanomaterials and nanotechnology
  * Seminar on Advanced topics and progress in the research project of the students
- Setup of Gas sensing lab at Assiut University for functional materials

INVITED REVIEWER:

- AIP- APL materials, Journal of applied physics.
- Sensors.
- Journal of Crystal Growth.
- Sensors and actuators B: Chemical.
- Journal of Compound and alloys.
- Journal of Sensors _ Hindawi
- Journal of the Taiwan Institute of Chemical Engineers

Others

Dates	Services Description	Offered to
2016	Organizing committee of the 3rd joint workshop on Advance material and its applications, 28th November, 2016	E-JUST
2016	Reviewer for "International Conference on Electrical, Computer and Telecommunication Engineering (ICECTE-2016)" at Rajshahi University of Engineering & Technology (RUET), Rajshahi, Bangladesh.	Rajshahi University of Engineering & Technology
2016	Invited talk: Promising materials for methane gas sensor:The 3rd Joint Workshop between E-Just and SRTA-City on Advanced Materials and Its Applications. 28th Nov, 2016.	E-JUST
2016	Attendance "Next Generation of Polymer Nanocomposites for Sustainable Development in Egypt" 7-8 December, 2016, EPRI, Egypt	
2016	Participate in Monday Seminar of E-JUST	
2017	Group member of the" training course of assessment for learning" under Tuning Africa project form Jan-October 2017.	E-JUST
2017	Committee member of Basic and applied science School post graduate bylaws	
2018	Organizing committee member for "The International Conference on Materials Science and Engineering: Recent Advances and Challenges" ICMSE-RAC2018.	
2018	Guest Editor for Journal of Key Engineering materials, 2017	
2017	Committee member: Junior evaluator for academic applicants for BAS, MSE, CEC.	
2017	Committee member of Physics Admission exam	
2017-2018	Committee chair of "Technical and financial decisions" for Micro-fabrication Center of Excellence" instruments	
2017	Committee member for evaluation of MSE, and BAS-physics lab engineer	
2017	Group Chair of the 1st E-JUST faculty development workshop on 11th September 2017	
2017	Participation in preparing MSE undergraduate bylaws	
2017, 2018	Guide of STEM's school students at Borge El-Arab city	

TRAINING and COURSE

Training attended / Technical skills acquired	Program	Period
Practical assessment for learning	**Tuning International ACADEMY Tuning Africa II Project Deusto**	**Jan-Oct/2017**

Training attended / Technical skills acquired	Program_AR	Period
Modern trends in teaching	الأتجاهات الحديثة فى التدريس	2007/05/05-07
Communication Skills	مهارات الاتصال الفعال	2007/05/21-19
Code of Ethics	أخلاقيات وآداب المهنة	2007/05/26-28
Effective Presentation	مهارات العرض الفعال	2007/06/09-11
Credit Hour System	نظام الساعات المعتمدة	2008/03/01-03
Conference Organization	تنظيم المؤتمرات العلمية	2012/04/07-09
Research Team Management	إدارة الفريق البحثى	2012/04/17-19
International Publishing of Research	النشر العلمى	2012/04/28-30
Research Ethics	أخلاقيات البحث العلمى	2012/05/19-21
University Administration	الإدارة الجامعية	2012/05/27-29
How to Compete For a Research Fund	كيف تكتب مشروعاً بحثياً تنافسياً	2013/02/09-11
Student Evaluation	نظم الإمتحانات وتقويم الطلاب	2013/02/23-25
Statistical Analysis in Scientific Research	التحليل الإحصائى فى البحث العلمى	2017/03/14-15
Strategic Planning	التخطيط الأستراتيجى	2017/08/06-07
Legal Aspects in University Environment	الجوانب القانونية بالجامعات	2017/08/08-09
Design and Conduct Scientific Research	تصميم وإجراء البحوث العلمية	2017/08/13-14
Scientific research funding and grants	تمويل البحوث العلمية والمنح	2017/12/24-25
Quality Standards in Teaching	معايير الجودة فى العملية التدريسية	2017/12/26-27

Training attended / Technical skills acquired	Place	Dates
Raman measurements RF-Sputtering	Nagoya University	2016
Focused ion beam technique	University of Toyama	2011

Evaporation technique		2010
X-ray measurement and analysis		2009
Surface area Measurements		2009
Scanning electron spectroscope (SEM)		2009
DC Sputtering technique		2008
Thermal Analysis	Assiut University	2007
Lab instruments operation theory	Egyptian Atomic Energy Authority	2005

PUBLICATIONS in INTERNATIONAL JOURNALS

No.	Paper's details	IF
1.	A. Abu El-Fadl, A. S. Soltan and **N. M. Shaalan**. Influence of cationic substitution on lattice constants and optical characterization in solution grown mixed crystals of potassium-ammonium zinc chloride, *Cryst. Res. Technol., 41 (2006) 1013*	0.908
2.	A. Abu El-Fadl, A. S. Soltan and **N. M. Shaalan**. Temperature dependence of the indirect band gap, steepness parameter and related optical constants of $[K_x(NH_4)_{1-x}]_2ZnCl_4$ mixed crystals, *Optics &Laser Technol. 39 (2007)1310*	1.879
3.	A. Abu El-Fadl, A. S. Soltan and **N. M. Shaalan** Influence of x-irradiation on indentation size effect and formation of cracks for $[Ky(NH_4)_{1-y}]_2ZnCl_4$ mixed crystals, Cryst. Res. Technol., 4 (2007) 364	0.908
4.	A.Abu El-Fadl, A. S. Soltan, M. A. Hefni and **N. M. Shaalan** Mechanical characteristics of solution grown potassium zinc chloride crystals doped with lithium ions, *Current Applied Physics 8 (2008)167*	2.144
5.	A.Abu El-Fadl, A. S. Soltan, M. A. Hefni and **N. M. Shaalan** Temperature dependence of the optical parameters for potassium zinc chloride crystals doped with lithium ions, *Optical materials, 30 (2008) 1576*	2.183
6.	**Nagih M. SHAALAN**, T. YAMAZAKI, T. KIKUTA, T. KAWABATA Nanostructure of WO_3 Sputtered Films Deposited at Various Gas Pressures, *Journal of the Vacuum Society of Japan Vol. 53, (2010)3*	1.0
7.	**N.M. Shaalan**, T. Yamazaki, T. Kikuta Synthesis of metal and metal oxide nanostructures and their application for gas sensing" *Materials Chemistry and Physics, 127 (2011)143-150*	2.101
8.	**N.M. Shaalan**, T. Yamazaki, T. Kikuta Influence of morphology and structure geometry on NO_2 gas-sensing characteristics of SnO_2 nanostructures synthesized via a thermal evaporation method, *Sensors and Actuators B: Chemical, 153(2011) 11-16.*	4.758
9.	**N.M. Shaalan**, T. Yamazaki, T. Kikuta Effect of micro-electrode geometry on NO_2 gas-sensing characteristics of one-dimensional tin dioxide nanostructure microsensors, *Sensors and Actuators B:*	4.758

Chemical, 156(2011) 784-790

10. **N.M. Shaalan**, T. Yamazaki, T. Kikuta — 4.758
NO_2 response enhancement and anomalous behavior of n-type SnO_2 nanowires-functionalized by Pd nanodots*, Sensors and Actuators B: Chemical 166–167 (2012) 671.*

11. Dan Meng, **N.M. Shaalan**, Toshinari Yamazaki, Toshio Kikuta — 4.758
Preparation of Tungsten Oxide Nanowires and Their Application to NO_2 Sensing, *Sensors and Actuators B: Chemical B 169 (2012) 113– 120.*

12. M.S. Islam, M.F. Hossain, **N.M. Shaalan**, M.M. Ali — ---
Fabrication of Nanostructured SnO_2 Thin Films by A Simplified Thermal Evaporation System, *Journal of Modern Science and Technology, 1 (2013) 1.*

13. M. BEKRI, **N. M. SHAALAN**, A. S. AHMED
Thermal evaporated WO_3 nanoparticles film under different evaporation pressures for NO_2 sensing, *Digest Journal of Nanomaterials and Biostructures 10, (2015) 603 – 613* — 0.836

14. **N. M.Shaalan**, M. Rashad,T. Yamazaki
Sensing performance of SnO_2 film fabricated by sputtering deposition, — 1.444
Applied Physics A: Materials Science & Processing 120 (2015)1555-1563.

15. M. RASHAD, **N. M. SHAALAN**, M. M. HAFIZ — 0.836
Enhanced photocatalytic of ZnO nanostructures via shape controlled Platinum thin film, *Digest Journal of Nanomaterials and Biostructures 10 (2015) 823 – 830*

16. **N.M. Shaalan** , M.Rashad , M.A.Abdel-Rahim — 2.359
Promising methane gas sensor synthesized by microwave-assisted Co_3O_4 nanoparticles, *Materials Science in Semiconductor Processing 46(2016)1–5.*

17. M. Rashad, **N.M. Shaalan**, Alaa M. Abd-Elnaiem — 1.272
Degradation enhancement of methylene blue on ZnO nanocombs synthesized by thermal evaporation technique, *Desalination and Water Treatment (2016) 1–7.*

18. **N.M. Shaalan**, D. Hamad, A.Y. Abdel-Latief, M.A. Abdel-Rahim — 1.753
Preparation of quantum size of tin oxide: Structural and physical characterization, *Progress in natural science: materials international 26 (2016) 145–151.*

19. **N.M. Shaalan**, M. Rashad, M.A. Abdel-Rahim — 2.359
Repeatability of indium oxide gas sensors for detecting methane at low temperature, *Materials Science in Semiconductor Processing 56 (2016) 260 – 264.*

20. **N.M. Shaalan**, M. Rashad, M.A. Abdel-Rahim — 1.29
CuO nanoparticles synthesized by microwave-assisted method for methane sensing, *Optical and Quantum Electronics, 48(12) (2016) 1-11.*

21. M. A. HUSSEIN, **N. M. SHAALAN**, F. SHOKR, S. A. MANSOUR , A. H. MOHARRAM — 0.836
IMPROVEMENT OF PROMISING GAS SENSOR SYNTHESIZED BY TRANSPARENT In_2O_3 FILM USING FURTHER THERMAL TREATMENT, *Digest Journal of Nanomaterials and Biostructures 11 (2016) 1253-1259.*

22. A. Y. Abdel-latief, M. A. Abdel-Rahim, **N. M. Shaalan** , D. Hamad 1.060
Structural and crystal growth kinetics studies for SnO_2 nanoparticles prepared via hydrothermal route, PHASE TRANSITIONS, (2017) 1-15

23. A Shaker, Ahmed H Hassanin, **N M Shaalan**, M A Hassan and Ahmed Abd El-Moneim
A novel technique for producing conductive polyurethane nanofibrous membrane for flexible electronics applications, Materials Science and Engineering 244 (2017) 012010

24. Shiamaa A. Zaki, M.I. Abd-Elrahman, A.A. Abu-Sehly, **N.M. Shaalan**, M.M. Hafiz 2.359
Thermal annealing of SnS thin film induced mixed tin sulfide oxides-Sn2S3 for gas sensing: Optical and electrical properties, Materials Science in Semiconductor Processing 75 (2018) 214–220.

25. **N.M. Shaalan**, KO Hara, CT Trinh, Y Nakagawa, N Usami, Simple method for significant improvement of minority-carrier lifetime of evaporated BaSi 2 thin film by sputtered-AlOx passivation, Materials Science in Semiconductor Processing 76 (2018) 37-41. 2.359

26 A Shaker, Ahmed H Hassanin, **N.M. Shaalan**, MA Hassan, Ahmed Abd El-Moneim, A novel technique for producing conductive polyurethane nanofibrous membrane for flexible electronics applications, IOP Conference Series: Materials Science and Engineering, 244 (2017) 012010.

27 Mohamed S Abdel Latif, **N.M. Shaalan**, Ahmed A El-Moneim, "Characterization of Crystalline Cu2SnS3 Synthesized via Low Temperature Solvothermal Method" Key Engineering Materials, Vol. 780, pp 62-66

CONFERNECE PARTICIPATION:

Conference

1. "Workshop on Materials Science and Radiation Physics", Faculty of Science, Assiut University (December 2003)

2. "The 6th radiation physics conference", (Assiut University, Egypt, Oct. 2002)

3. "The First Conference of Young Scientists Basic Science & Technology", (Assiut University, Egypt, May 5-6, 2007),
(Oral lecture titled in "Mechanical characteristics of solution grown potassium zinc chloride crystals doped with lithium ions").

4. "The Second All African IRPA Regional Radiation Protection Congress", (Ismailia, Egypt, April 22-26, 2007),
(Oral lecture titled in "Optical absorption studies of γ-irradiated $KHSeO_4$ single crystals").

5. "50th Vacuum Symposium Proceedings (Tokyo 2009)" (Tokyo, Japan November 4-6, 2009)"
(Oral lecture titled in "Nanostructure of WO_3 Sputtered Films Deposited at Various Gas Pressures").

6. 51th Vacuum Symposium Proceedings (Tokyo 2010)" (Tokyo, Japan November 4-6, 2010)" (Oral lecture titled in "Effect of Micro-Electrode Geometry on NO_2 Gas-Sensing Characteristics of One-dimensional Tin Dioxide Nanostructure Microsensors").

7. 9th International Conference on the Physical Properties and Application of Advanced MATerials (ICPMAT2014), Poland
Oral: "PREPARATION OF TUNGSTEN OXIDE NANODOTS VIA THERMAL EVAPORATION METHOD AND THEIR APPLICATION TO NO2 GAS SENSING"

8. The First International Conference on Multidisciplinary, Research 28 – 31 October 2015
Oral: "Structural, optical and sensing properties of indium oxide transparent films prepared by one-step thermal evaporation-like technique"

9. The fifth international conference for young scientists in basic and applied sciences, 29th Oct. – 1st Nov., 2016, Assiut Univ.
Oral: CuO nanoparticles synthesized by microwave-assisted method for methane sensing.

10. The Electricx/Solar-Tec conference 4-6 Dec 2016.

11. Workshop on "Next Generation of Polymer Nanocomposites for Sustainable Development in Egypt" 7-8Dec. 2016

12. The 3rd Joint Workshop between E-Just and SRTA-City on Advanced Materials and Its Applications. 28th Nov, 2016.
Invited talk: Promising materials for methane gas sensor

13. 1st International Conference in Physics and Materials Science E , 23-25 March, Luxor, Egypt 2017,
Oral: AlOx Passivation For Improving The Minority-Carrier Lifetime Of $BaSi_2$ Film Prepared By Vacuum Evaporation For Solar Cell Application.

14. Joint workshop Kyoto-EJust-Assiut Universities:
Materials Science and Engineering: fabrication and applications June 8th , 2017 Egypt,
Invited talk: Materials concepts for PV solar cell: lifetime optimization of $BaSi_2$ thin film

15. International Conference on Materials and Intelligent Manufacturing (ICMIM 2017)
At: National University of Singapore (NUS), Singapore, 2017. A Shaker, AH Hassanin, **NM Shaalan**, MA Hassan, AA El-Moneim,
A novel technique for producing conductive polyurethane nanofibrous membrane for flexible electronics applications

16. 2018 9th International Conference on Material and Manufacturing Technology (ICMMT 2018), Mohamed S. Abdel Latif, **N. M. Shaalan,** A. Abdel Moniem,
Characterization of crystalline Cu_2SnS_3 synthesized via low temperature solvothermal method