CURRICULUM VITAE
RIAD TAHA AL- KASASBEH
Professor
(Dr. of Electrical Eng –Biomedical Eng.)

Personal Data

Name:	Riad Taha Al-kasasbeh
Date of Birth:	12/10/1966
Place of Birth:	Karak / Jordan
Nationally:	Jordanian
Marital states:	Married (5 children)
Scientific Rank:	Professor(Dr. of Electrical Eng –Biomedical)
Language:	Arabic "Excellent" Russian "Fluent", English "Good"
Address:	Amman 11937, Po-Box 541324,
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Qualifications:

- Completion of secondary school / scientific branch (Jordan, 1984) with grade 87.5%.
- Master of Engineering Science – Specialized in electronic equipment from V.I Ulyanov (Lenin) Electrical Engineering Institute of Leningrad , U.S.S.R 1990.
- Doctor of philosophy (Ph. D) degree in (Technical science – Specialized in the controlling of biological and medical systems and electronic equipment) from Electrical Engineering University of Petersburg, Russia, 1993.

I had many special courses as follows:

1-Processing EEG Signals;1993, 1994,1995; Russian Academy.
2-Management engineering for biomedical equipment (1996) Ministry of Higher Education, Syria.
3-Special courses in many computer software systems.

Scholarships:

· Government Scholarship (Ministry of Education, Jordan), V.I Ulyanov (Lenin) Electrical Engineering Institute of Leningrad , U.S.S.R 1985-1990.
· Government Scholarship (Ministry of Higher Education), Electrical Engineering University of Petersburg, Russia, 1990-1993.
· DFG Scholarship, Konstanz University of Applied Sciences, Germany, June. – Sep., 2007.
· DFG Scholarship, Konstanz University of Applied Sciences, Germany, June. – Sep., 2008.
· DFG Scholarship, Konstanz University of Applied Sciences, Germany, June. – Sep., 2009.
· DFG Scholarship, Konstanz University of Applied Sciences, Germany, June. – Sep., 2010.

· DFG Scholarship, Konstanz University of Applied Sciences, Germany, June. – Sep., 2011.

Research Interests:

-Multiattribute decision making for vector estimates of operators' group activity in man-machine systems
- Processing EEG signals
- Mathematical processing for the selection of acupuncture points towards optimised design of biomedical equipment ·
- Automated detection of artifacts in electroencephalography signals.

Professional Academic Experience:

1.Research Assistant, Department of Biomedical Engineering, Russian Academy, Petersburg, Russia, (1990-1993).
2.Research, Department of Biomedical Engineering, Russian Academy, Petersburg, Russia, (1993-1995).
3.Lecturer, Tafilla Polytechnic Institute, Jordan, (1995-1997).
4.Lecturer Al-Balqa Applied University, Al-salt College, Al-Salt, Jordan, (1997-2000).
5.Assistant.Prof, Al- Balqa Applied University(BAU), Engineering College, ALSalt ,Jordan,(2000,2003)
6.Assistant.Prof, Al-Balqa Applied University(BAU), Faculty of Engineering Technology Amman ,Jordan,(2003,2006).
7.Promotion to Associated Professor in Dec. 2006, Faculty of Engineering Technology , Amman ,Jordan.
8.Visiting professor to Konstanz University of Applied Sciences, Germany, funded by DFG, from 2-June-2007 until 2-September 2007.
9.Visiting professor to Konstanz University of Applied Sciences, Germany, funded by DFG, from 18-June-2008 until 21-September 2008.

10. Visiting professor to Konstanz University of Applied Sciences, Germany, funded by DFG, from 21-June-2009 until 22-September 2009.

11. Visiting professor to Konstanz University of Applied Sciences, Germany, funded by DFG, from 25-June-2010 until 25-September 2010.

12. Visiting professor to Konstanz University of Applied Sciences, Germany, funded by DFG, from 25-June-2010 until 25-September 2011.

12. Promotion to Professor in Sep. 2011, Faculty of Engineering Technology , Amman ,Jordan,(till now).

Professional Aadministrative Experience:

1. **Consultant to the Presidency, Al-Balqa' Applied University (1997-2000)**
2. **Director of the Outreach Department, Deanship of Scientific Research and Higher Graduation, Al-Balqa' Applied University (2002-2003)**
3. **Director of Consulting and Studies, Al-Balqa' Applied University (2002-2003)**
4. **Director of the Department of Strategic Planning, National Centre for Crisis Management, Royal Court (2010)**

Scientific work:

Publications

A. Articles in Journals:

1. Riad Taha Al-Kasasbeh, "Prediction of the gastric ulcer based on the change of the electrical resistance of the acupuncture points and fuzzy logic decision making". accepted for publication in the Computer Methods in Biomechanics and Biomedical Engineering Taylor & Francis ISSN: 1476-8259.

2. Riad Taha Al-Kasasbeh, F. Ionescou, N. A. Korenevsky, M. Alshamasin, "Prediction and Prenosological Diagnostics of Heart Diseases Based on Energy Characteristics of Acupuncture Points and Fuzzy Logic". accepted for publication in the Computer Methods in Biomechanics and Biomedical Engineering Taylor & Francis ISSN: 1476-8259

3. **Riad Al-Kasasbeh ,** Nikolay Korenevskiy, Florin Ionescou,Mahdi Alshamasin, Alexander Kuzmin**,**"Synthesis of Fuzzy Logic for Prediction and Medical Diagnostics by Energy Characteristics of Acupuncture Points", J Acupunct Meridian Stud 2011;4(3):175e182, Elsevier **ISSN** 2005-2901

4. Riad Taha Al-Kasasbeh, "Software Features for the Estimation of an Operators' Group Activity in Man-machine system". Advances in Engineering Software 42 (2011) 547–554, Elsevier **ISSN:** 0965-9978

5. Riad Taha Al-Kasasbeh, " Biotechnical measurement and software system controlled features for determining the level of psycho-emotional tension on man–machine systems by fuzzy measures". Advances in Engineering Software 45 (2012) 137–143, Elsevier **ISSN:** 0965-9978

6. Riad Taha Al-Kasasbeh, Yan Pekker, Sergey Glushchuk, "Design of Auonomous gastroinesinal tractelecrosimulator-Brobes" Biomedical Engineering, Vol. 45, No. 4, November, 2011, pp. 145_149., Vol. 45, No. 4, Jul.-Aug., 2011, pp. 34_39. Springer US ISSN: 1573-8256.

7. **Riad Taha Al-Kasasbeh**, Alshamasin Mahdi Salman, Ionescu Florin. Korenevskiy N.Modelling and parameter estimation for operator intelligence in Man-Machine Systems, IJMIC , International Journal of Modeling, Identification and Control, Vol. 15, No. 1, 2012.

8. M. Alshamasin **, Riad Taha Al-Kasasbeh,** F. Ionescou, "Modeling and Simulation of a SCARA Robot using Solid Dynamics and Verification by MATLAB/Simulink", IJMIC, International Journal of Modelling, Identification and Control, Vol. 15, No. 1, 2012.

9. N. A. Korenevsky, D. E. Skopin**, Riad Taha Al-Kasasbeh,** and A. A. Kuz'min, "System for Studying Specific Features of Attention and Memory.Biomedical Engineering", Vol. 44, No. 1, 2010, pp. 32_35. Vol. 44, No. 1, 2010, pp. 36_40. Springer US ISSN: 1573-8256.

10. Riad Taha Al-Kasasbeh, F. Ionescou, A. Mukattash, R. Btoush "Confidence Estimates of Operators' Group Activity in Man-Machine Systems", Jordan Journal of Mechanical and Industrial Engineering, Volume 4, Number 2, March. 2010,ISSN 1995-6665,Pages 324 – 329,

11. Korenevskyi, N. A., Ionescu, Fl., Kuzmin, A.A. and **Riad Taha Al-Kasasbeh**. "Synthesis of the Combined Fuzzy Rules for Medical Applications with Using Tools of Exploration Analysis", Journal of Biomedical electronics,ISSN 1560-4136 ,5-2009. pp .65-76.

12. Korenevskyi, N. A., Ionescu, Fl., Kuzmin, A.A. and **Riad Taha Al-Kasasbeh**. "Prediction of Occurrence, Aggravation and Pre-Nosological Diagnostics of Osteochondrosis of a Backbone's Lumbar Region with Use of Reflexology Methods ", Journal of Biomedical electronics,ISSN 1560-4136 ,5-2009. pp .60-64

12. A.S. Khraiwish, M. Alshamasin, **Riad Taha Al-Kasasbeh**, Y. Al shiboul, Z. Al-Qudah and M. Al-Busoul, 2009. " The Effect of the Harmonics, the Fault Location and the Fault Resistance on the Performance of the Impedance-Type Distance Relay", Science Publications, American Journal of Applied Sciences 6 (4): 788-796, 2009, ISSN 1546-9239.

13. Mahdi Alshamasin, **Riad Taha Al-Kasasbeh**, A. Khraiwish,Y. Al-shiboul and Dmitriy E. Skopin, 2009. "Acceleration of Image Processing Using New Color Model", Science Publications, American Journal of Applied Sciences 6 (5): 1015-1020, ISSN 1546-9239 .

14. Mahdi Salman Alshamasin, Florin Ionescu and **Riad Taha Al-Kasasbeh**. "Kinematic Modeling and Simulation of a SCARA Robot by Using Solid Dynamics and Verification by Robot by Using Solid Dynamics and Verification by MATLAB/Simulink", European Journal of Scientific Research, Vol.37 No.3 (2009), © EuroJournals Publishing, Inc. 2009, ISSN 1450-216X.

15. Riad Taha Al-Kasasbeh, R. A. Shapovalnikov, D. E. Skopin and Mahdi Salman Shamaseen. "Diagnosis of Fetal State by ECG Detection", Biomedical Engineering, Volume 43, Number 2 / March, 2009 .Springer US ISSN: 1573-8256.

16. Riad Taha Al-Kasasbeh, Mahdi Alshamasin, D. E. Skopin, Omar Barbarawi and V. V. Geppener . "Automated Detection of Artifacts in Electroencephalography Signals Using a Linear Prediction Model" Biomedical Engineering, Volume 43, Number 1 / January, 2009 Springer US ISSN: 1573-8256.

17. **Riad Taha Al-Kasasbeh**, Mahdi Salman Shamaseen and D. E. Skopin " Automated Detection and Selection of Artifacts in Encephalography Signals Biomedical Engineering", Volume 42, Number 6 / November, 2008 Springer US ISSN: 1573-8256.

18. Riad Taha Al-Kasasbeh. and Shepovalnikov R A. " Two –Dimensional Representation spatial structure changes in brain bioelectric potential field", Applied Bionics and Biomechanics Journal , Volume 4 Issue 1, Taylor & Francis Group-2007, ISSN 1754-2103.

19. **Riad Taha Al-Kasasbeh** and Yousif El-tous " Selection of Artifacts in EEG-signals Using Kullback information", Engineering Science Journal, v.22 -2006,Assiut,Egypit, ISSN1687-0530.

20. **Riad Taha Al-Kasasbeh** and B.V. Lvov " Detection of Eye Movement and Muscle Artifact in EEG of Normal Subjects by Classification of Fractal Dimension Dynamics ", Dirasat International Journal, v.33-2006, Amman, Jordan, ISSN 1560-4551.

21. Riad Tata Al-Kasasbeh and B.V. Lvov. Classification of EEG signals with artifacts, based on fractal dimension analysis, wavelet transform and neural network, Dirasat Journal, v.32. pp. 78-90, 2005, Amman, Jordan, ISSN 1560-4551

22. **Riad Taha Al-Kasasbeh,** "Serdyukov, N.N. and A.N. Shepovalnikov. The use of biotechnical measuring–computing controlled training system for the treatment of stutter". Problems in Pathology, Development, and Collapse of Speech Function.1999, Petersburg State University. ISBN 5-228-03256-4 (in Russian)

23. Riad Taha Al-Kasasbeh. " Homeostatic models of the information system of small groups of operators", published in the Interdepartmental Digest of Control Processes in Complex Systems, 1995–Ufa, Published in UGATU pp. 112 –120. ISBN ISBN 5-86911-057-2 (in Russian)

24. Riad Taha Al-Kasasbeh: " Investigation of groups of operators based on fuzzy logic, published in the scientific periodical News of State". Electromechanical University -Petersburg N 468, P.P 89 – 93, 1994, ISBN 5-228-02258-5 (in Russian)

Publications

B. Published Contribution to Academic Conference

1- Korenevskyi,N.A., and **Riad Taha Al-Kasasbeh**.,Ionescu,Fl**,** "Determining the Level of Psycho-Emotional Tension on a Heterogeneous Rules of Fuzzy Output"**,** Proceedings of **CSCS**–18,18 International Conference on Control System and Computer Science, Bucharest, Romania, May 24-27, 2011

2- **Riad Taha Al-Kasasbeh**, Ionescu F., Korenevskii N. A., Mahdi S. "Prediction and Prenosological Diagnostics of Gastrointestinal Tract Diseases Based on Energy Characteristic of Acupuncture Points and Fuzzy Logic". Proc. 3rd International Conference on Bioinformatics and Biomedical Technology, Sanya, China, March 25-27, 2011

3- Korenevskyi,N.A.,Ionescu,Fl.,Kuzmin,A.A. and **Riad Taha Al-Kasasbeh**, "The prognosis of early and differential diagnostics of diseases on the energetic dicbalance of Acupuncture points and fuzzy logic". of 2009 International Conference MEDICAL –ECOLOGICAL INFORMATION TECHNOLOGIES-2010, May 26-29,Kursk-Russia ISBN 978-5-7681-0470-2, pp. 155-169.

4- E.U.Kobzar, **Riad Taha Al-Kasasbeh**, "Prediction of Occurrence of Osteocchonrosis of backbone's lumbar region". of 2009International Conference MEDICAL –ECOLOGICAL INFORMATION TECHNOLOGIES-2009, May 26-29,Kursk-Russia , ISBN 978-5-7681-0470-2, pp. 36-39.

5- Korenevskyi, N. A., Ionescu, Fl., Kuzmin, A.A. and **Riad Taha Al-Kasasbeh**. "Using Fuzzy Logic for Prediction of Occurrence, Aggravation and Pre-Nosological Diagnostics of Osteochondrosis of a Backbone's Lumbar Region" . Proc. of CI2009, IASTED International Conference on Computational Intelligency, August 17 -19, 2009, Honolulu, Hawaii, USA.

6- Korenevskyi, N. A., Ionescu, Fl., Kuzmin, A.A. and **Riad Taha Al-Kasasbeh.** "Synthesis of the Combined Fuzzy Rulles for medical Applications by Using Tools of Exploration Analysis". Proc. of IAFA 2009 International Conference on Interdisciplinary Approaches in Fractal Analysis, May 26-29. Bucharest, Romania, ISSN 2066-4451, pp. 71-77.

7- **Riad Taha Al-Kasasbeh**. "Two-dimensional representation of spatial structure changes in brain bioelectric potential field". Proceedings of IFMBE, Kuala Lumpur, Malaysia, Des, 2-9, 2006, pp.431–433, ISBN 978-3-540-68016-1.

8- **Riad Taha Al-Kasasbeh**. "Invariant signal recognition in noise environment. Proceedings of International ICINCO", Second International Conference on Informatics in Control, Automation And Robototics 2005, Sept.14-17, 2005 , Barcelona, pp.79-83.Barcelona, Spain. ISBN 972-886531-7.

9. **Riad Taha Al-Kasasbeh.** "Wavelet-based method for EEG artifacts classification. Proceedings of IFMBE", Kuala Lumpur, Malaysia, Sept.. 2-9, 2004, pp.157–159, ISSN ISBN 983-2085-68-3.

10- **Riad Taha Al-Kasasbeh**. "Statistical -Similar model of organization work for small group information system operators", Proceed. of International Carpathian Control Conference ICCC2003, May 26-29,2003, Cosice, Slovak Republic. pp. 217-224, ISBN 80-7099-509-2.

Publications

D.Reports

1.Mahdi Salman Shamaseen **, Riad Taha Al-Kasasbeh** and Fl. Ionescu. "Modelling and Simulation of Robots". End-Report of the DFG-Research Stage, June-August 2007, 33 pages, 28 figures.

2. Riad Taha Al-Kasasbeh. and Fl. Ionescu. "Developping of a Generalised Mathematical Model for the Selection of the Acupuncture Points towards and Optimised Design of Biomedical Equipment ". End-Report of the DFG-Research Stage, June-August 2007, 18 pages, 11 fig.

3. Riad Taha Al-Kasasbeh and Fl. Ionescu. "Developping of a Multi Atribute Decision Making for Phyhomotoric Selection of Human Operators towards and Optimised Design of Biomedical Equipment". End-Report of the DFG-Research Stage, June-August 2007, 28 pp., 11 fig.

4. Mahdi, S. A. , **Riad Taha Al-Kasasbeh** and Fl. Ionescu. "Modelling and Simulation of Robots". End-Report of the DFG-Research Stage, June-Sept 2008, 33 pp., 28 fig.

5. Riad Taha Al-Kasasbeh and Fl. Ionescu. "Multiatribute Decisions Making for Vector Estimates of Operators" Group Activity in Man-Machine Systems . Report of the DFG-Research Stage, June-Sept 2008, 30 pp., 12 fig.

6.Korenevskii, N., Kuzmin, Al., Fl. Ionescu and **Riad Taha Al-Kasasbeh**. "Developing of a Generalised Mathematical Model for the Selection of the Acupuncture Points towards and Optimised Design of Biomedical Equipment". 1st Part: Acupuncture Biophysics. Section 1: Model of Interaction Between the Projection Zone and Internal Organs. Report of the DFG-Research Stage, September-October 2008, 82 pp., 21 fig.

7.Kuzmin, Al., Korenevskii, N. R., Fl. Ionescu and **Riad Taha Al-Kasasbeh**. "Developping of a Generalised Mathematical Model for the Selecion of the Acupuncture Points towards and Optimised Design of Biomedical Equipment" ; 1st Part: Acupuncture Biophysics; Section 2. Synthesis of Fuzzy Rules for Prognosis and Diagnosis. Report of the DFG-Research Stage, September-October 2008, 32 pp, 12 fig.

8.Korenevskii, N., Kuzmin, Al., Fl. Ionescu and **Riad Taha Al-Kasasbeh**. "Developing of a Generalised Mathematical Model for the Selection of the Acupuncture Points towards and Optimised Design of Biomedical Equipment". 2nd Part:“Development of Decision-Making System for the Reflexotherapy Doctor”, Section 1: “The Mathematical Providing of the Decision-Making system”. Report of the DFG-Research Stage, January 2008 - March, 2009, 38 fig, 49 pp.

9.Korenevskii, N., Kuzmin, Al., Fl. Ionescu and **Riad Taha Al-Kasasbeh.** "Developing of a Generalised Mathematical Model for the Selection of the Acupuncture Points Towards an Optimized Design of Biomedical Equipment". 2st Part: “Development of Decision-Making System for the Reflexotherapy Doctor”, Section 2:

"Development of Interfaces of the Decision-Making System", Report of the DFG-Research Stage, January 2008 - March 2009, 19, figures, 28 pp.

10. Riad Taha Al-Kasasbeh and Fl. Ionescu. 2st part:"Examples of synthesis of combined fuzzy decision rules for medical and psychological diagnosis. End-Report of the DFG-Research Stage, June-August 2010, 28 pp., 11 fig.

11.Report of the Achieved Results during the DFG Research Stage in HTWG-Konstanz June 25 – September 22, 2010Topic:"Modeling, Simulation & Control of Robots"Assist.-Prof.Dr.-Eng. Mahdi Salman Alshamasin, Assoc.Prof.Dr.-Eng. **Riad Taha Al-Kasasbeh**, Faculty of Engineering Technology-Albalqa' Applied University, Jordan

12. Korenevskii, N., Kuzmin, Al., Fl. Ionescu and **Riad Taha Al-Kasasbeh**, Report of the Achieved Results during the DFG Research Stage in HTWG-Konstanz June 30 – September 24, 2010,Topic:" "Hardware and Software Complex for Reflex Diagnostics and Therapy "Part 2: "Mathematical and Methodological Support of the Expert System of the Reflexotherapist", Assoc.Prof.Dr.-Eng.

13. Korenevskii, N., Kuzmin, Al., Fl. Ionescu and **Riad Taha Al-Kasasbeh** , Report of the Achieved Results during the DFG Research Stage in HTWG-Konstanz June 30 – September 24, 2010,Topic:" Hardware and Software Complex for Reflex Diagnostics and Therapy "Part 3: "Development of Hardware and Software for Computer Workstation of Reflexotherapist", Assoc.Prof.Dr.-Eng.

14. **Riad Taha Al-Kasasbeh**,Korenevskii, N., Kuzmin, Al., Fl. Ionescu ,Report of the Achieved Results during the DFG Research Stage in HTWG-Konstanz June 30 – September 24, 2010,Topic:" Hardware and Software Complex for Reflex Diagnostics and Therapy "Part 1: "Development of Hardware and Software for Computer Workstation of Reflexotherapist", Assoc.Prof.Dr.-Eng.

Interests:

1- A member of the Al- Balqa Applied University (BAU) committee for Outreach program.

2- A member of the artificial automation EEG at the Ministry of Health

3- Consultant in King Abdallah II Development Centers.

4- Head of Department Outreach program 2002-2005

I teach the following subjects:

1-Electrical and Electronic Circuit Engineering.

2-Electrical Applied Engineering.

3-Electrical Engineering.

4 Logic Design.

5-Electronic Devices.

6-Electronic Circuits.

7-Electrical Measurement, Sensor and Transducers.

8-Introduction to Biomedical Engineering .

B) Under publication scientific papers:

1-Modeling and Simulation of a SCARA Robot using Solid Dynamics and Verification by MATLAB/Simulink.
2-Effects of Harmonics on the Performance of Capacitor –Run Single-Phase Induction Motors.
3-Towards economic single-phase induction motor.
4-Control of zero sequence braking for three-phase induction motor operated from single-phase supply with a controlled capacitor.
5-Fuzzy determination of the human's level of psychoemotional.
6-Analysis of the earth's magnetic field variations on the basic of a wavelet –based approach.
7-A biotech measurement software system using controlled features for determining the level of psycho-emotional tension on man-machine system operators by bio-active points based on fuzzy logic measures.
8-Prediction and diagnosis of osteochondrosis of the lumbar region based on the energy reaction of acupuncture points with the use of fuzzy rules.
9- Prediction and Prenosological Diagnostics of Stomach Diseases Based on Energy Characteristics of Acupuncture Points and Fuzzy Logic.

Funded projects:

1-Co-researcher, research project funded by DFG on "Modeling, Simulation & Control of Robots", Germany, summers of the years 2007 and 2008,2009,2010 (9 months).
2- Main researcher, research project funded by DFG on "Developing of a Generalized Mathematical Model for the Selection of the Acupuncture Points towards an Optimized Design of Biomedical Equipment", Germany, summers of the years 2007 and 2008 and 2009 (9 months).

3- Main researcher, research project funded by DFG on " Multiattribute decision making for vector estimates of operators' group activity in man-machine systems ", Germany, summers of the years 2007 and 2008 and 2009 (9 months).

Funded projects:

1-Co-researcher, research project funded by DFG on "Modeling, Simulation & Control of Robots", Germany, summers of the years 2007 and 2008,2009,2010 (9 months).
2- Main researcher, research project funded by DFG on "Developing of a Generalized Mathematical Model for the Selection of the Acupuncture Points towards an Optimized Design of Biomedical Equipment", Germany, summers of the years 2007 and 2008 and 2009 (9 months).