# Curriculum Vitae



## **Personal Information**

First Name Ahmad

Family Name Banakar

Father Name Hassan

**Birthday** 14-04-1977

Associate Professor,

**Mechanical & Biosystems Engineering Department** 

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# **Experience**

## Academic Records

High School	1995	Physics & Mathematics
B. Tech.	1999	Electrical Engineering (Electronic)
M. Tech.	2002	Electrical Engineering (Instrumentation & Control)
Ph.D.	2008	Electrical Engineering (Neuro-Fuzzy Systems)
PostDoc	2018	Wageningen Plant Research - Greenhouse Horticulture (Hyperspectral Imaging & Crop Modeling in Greenhouse Technology)

**Topic of Ph.D. Thesis:** Wavelet Based Neuro-Fuzzy Systems in Forecasting of Dynamic Systems

**Topic of PostDoc:** Evaluation of different Spectral Imaging Cameras for Detection of Powdery Mildew Disease in Tomato Plants

## **Job Experience**

### a) Professional experience:

- Since 2016, Associate Professor, Department of Mechanical Agriculture, Tarbiat Modares University, Tehran, Iran
- 2017-2018, Guest Researcher, Wageningen Plant Research Greenhouse Horticulture
- 2008-2016, Assistant Professor, Department of Mechanical Agriculture, Tarbiat Modares University, Tehran, Iran
- 2007-2008, Agro-Tech college of Tehran University, Tehran, Iran,

## b) Software experience:

Programming skill in C, MATLAB & Simulink and Toolboxes of MATLAB

### c) Language experience:

Persian (mother taunt), English (Speaking, Reading, writing), Hindi

## d) Employer experience:

Shiva-Technology Company Electronic & Robotic, 2002-2003

### e) Employer experience:

Courses		
Advanced Engineering Mathematics		
Artificial Intelligence		
Artificial Neural Network		
Fuzzy Modeling and Control		
Signal Processing		
Industrial Automation		
Linear Control		
Basic Electronic		

# **Research Activity**

### a) Fields of interest

Systems Identification, Intelligent Systems, Soft computing, Evolutionary computation, Clustering techniques, Modeling and Control of dynamic system using Artificial Neural Network & Neuro-Fuzzy approaches, Time series analysis.

Agricultural systems, Modeling and Optimizations

Optimization of Intelligent Greenhouses (Energy and Water)

Solar Energy (Generating, Optimization, Hybrids systems)

Desalination (Producing Method, Optimization, Hybrids systems)

### b) Supervision of Student

#### M.Tech:

- 1. M.Tech, Development of an Android application to measure DiElectric Properties, 2017
- 2. M.Tch., Ross male Sexual Maturity Detection using Audio Signals and Data Mining Method, 2017
- 3. M.Tech., Fabrication and Evaluation of an Ultrasound Desalination with Solar Preheating System, 2016
- 4. M.Tech. Determination Osteoporosis Dried Figs by Using Capacitive Sensing, 2016
- 5. M.Tech. Optimization of MCHP System by Means of Heating Elements for Greenhouse Heating, 2015
- 6. M.Tech. Gender Determination of Eggs using Spectroscopy and Intelligent Classifiers, 2015
- 7. M.Tech. Diagnosis of Chicken Diseases Based on Heart's Sound Signal Using Data Mining Methods, 2014
- 8. M.Tech. Gender Determination of Incubated Chicken Eggs Using Heart Fetal Analyses and Egg Capacitive Sensing, 2014
- 9. M.Tech. Design, Fabrication and Exergy analysis of Solar Desalination Device in Vacuum Condition, 2014
- 10. Meysam Emad M.Tech., Thermoelectric cogeneration system in a solar collector, Department of Agriculture Machinery, Tarbiat Modares University, Tehran, Iran, 2013
- 11. Seifolah Saghar M.Tech., Design, Fabrication and Evaluation of a Pre-heating System for Solar Desalination Device with Linear Fresnel Lens Solar Concentrator, Department of Agriculture Machinery, Tarbiat Modares University, Tehran, Iran, 2012

- 12. Mehrdad Baigvand M.Tech., Design, fabrication and Evaluation of dry figs grading system using machine vision, Department of Agriculture Machinery, Tarbiat Modares University, Tehran, Iran, 2012
- 13. Hamid Khafajeh M.Tech., Design, Fabrication and Evaluation of a Solar Desalination with Microwave Pre-heating, Department of Agriculture Machinery, Tarbiat Modares University, Tehran, Iran, 2011
- 14. Mehdi Montazeri M.Tech., Design, Fabrication and Evaluation of an Automatic photovoltaic Solar Desalination, Department of Agriculture Machinery, Tarbiat Modares University, Tehran, Iran, 2010
- 15. Ali Reza Mahdavian M.Tech., Design, Fabrication and Evaluation of an Automatic on Road Machines, Department of Agriculture Machinery, Tarbiat Modares University, Tehran, Iran, 2010
- 16. Maziar Feizoallahzadeh M.Tech., Design, Fabrication and optimization of solar dish collector and sample application, Department of Agriculture Machinery, Urmieh University, Urmieh, Iran, 2010
- 17. Wavelet Based Adaptive Fuzzy Inference System and Its Application, Vinod Kumar, Electrical Engineering Department, (Co-Supervisor)

#### PhD:

- 1. Meghdad Khazaei, Ph.D., Estimation of Internal Combustion Engine Timing Belt Remaining Useful Life (RUL) Based On Vibration Signals Using Artificial Intelligence Techniques, Department of Agriculture Machinery, Tarbiat Modares University, Tehran, Iran
- 2. Davood Momeni Ph.D., Development and Evaluation of a Solar Heating Device for Using in Greenhouse, Department of Agriculture Machinery, Tarbiat Modares University, Tehran, Iran
- 3. Hamid Khafajeh Ph.D., Design, Construction and Optimization of a Greenhouse Control System of Water Use, Energy and Hydroponic Cucumber Performance, Tarbiat Modares University, Tehran, Iran

- 4. Mehdi Montazeri Ph.D., Design, Fabrication and Evaluation of Hybrid Solar Cooling Absorption-Evaporative System in the Greenhouse, Tarbiat Modares University, Tehran, Iran
- 5. Isa Hazbavi, (Co Supervisor) Ph.D., Optimization of Washing and Drying of Date Palm (Stamaran variety) to Increase its Quality and Marketing during Storage, Department of Agriculture Machinery, Tarbiat Modares University, Tehran, Iran
- 6. Shiva Gorjian, (Co Supervisor) Ph.D., Experimental Investigation of an Automatic Portable Parabolic Solar Water Desalination Device, Department of Agriculture Machinery, Tarbiat Modares University, Tehran, Iran
- 7. Abbas Mohanadi Khoramabadi, (Co Supervisor) Ph.D., Identification, species diversity of the parasitoid wasps of the Pimpliformes (Hymenoptera: Ichneumonidae) subfamilies Orthocentrinae, Diplazontinae and Pimplinae in central north of Iran and possibility of species identification using image processing, Department of Entomology, Tarbiat Modares University, Tehran, Iran
- 8. Naser Behrouzi Khazaee (Co Supervisor) Ph.D., Mahdavian, Modeling and Intelligent Optimizing of Grape Drying process, Department of Agriculture Machinery, Tarbiat Modares University, Tehran, Iran
- 9. Biuk Mostafaei (Co Supervisor) Ph.D., Investigating the Ultrasonic Assisted Production of Biodiesel, Department of Agriculture Machinery, Tarbiat Modares University, Tehran, Iran
- 10. Sheida Jalili (Co Supervisor) Ph.D., Spectral analysis of periodic behavior of Lake Urmia water level time series, Department of Water Sources, Tarbiat Modares University, Tehran, Iran

### c) Book Publication

- 1. Wavelet Neural Networks and Their Application in Neuro-Fuzzy Systems (Ahmad Banakar), Tarbiat Modares University Press, 2013
- 2. Servo hydraulic, Ahmad Banakar, Pejman NikAndish, Jahad e Daneshgahi Publication Co., 2013

### d) Collected of Journal Publication

- 1- Ali Hosseini, Ahmad Banakar, Shiva Gorjian, "Development and performance evaluation of an active solar distillation system integrated with a vacuum-type heat exchanger", *Desalination-Elsevier*, Volume 435, 2018, pp 45-59
- 2- Mahdi Ghaderi, Ahmad Banakar, Ali Akbar Masoudi, "Using dielectric properties and intelligent methods in Separating of hatching eggs during incubation", *Measurement Elsevier*, Available online 22 September 2017
- 3- Ahmad Banakar, Seyfolah Saqar, Ali Motevali, Golamhassan Najafi, "Evaluation of a Pre-heating System for Solar Desalination System with Linear Fresnel lens", *Journal of Renewable and Sustainable Energy*, Accepted September 2017
- 4- Ahmad Banakar, Ali Motevali, Meysam Emad, Barat Ghobadian, "Co-generation of Heat and Power in a Thermoelectric System Equipped with Fresnel Lens Collectors using Active and Passive Cooling Techniques", *Renewable Energy*, Available Online Since may 2017
- 5- Hamed Saberian, Zohreh Hamidi-Esfahani, Hassan Ahmadi Gavlighi, Ahmad Banakar, Mohsen Barzegar, "The potential of ohmic heating for pectin extraction from orange waste", *Journal of Food Processing and Preservation-Wiley*, Available online 13 September 2017
- 6- Mehdi Montazeri, Ahmad Banakar, Barat Ghobadian, "Enhancement of cascade solar still productivity with sloping absorber plate", *Maejo International Journal of Science and Technology (Maejo)*, 11(01), 2017, pp. 35-44
- 7- Ahmad Banakar, Mohammad Sadeghi, Abdolhamid Shushtari, "An intelligent device for diagnosing avian diseases: Newcastle, infectious bronchitis, avian influenza", *Computers and Electronics in Agriculture Elsevier*, 127, 2016, 744–753
- 8- Mehrdad Baigvand, Ahmad Banakar, Saeed Minaei, Jalal Khodaei, Nasser Behroozi-Khazaei, "Machine Vision System for Grading of Dried Figs", Computers and Electronics in Agriculture Elsevier, 119, 2015, 158-165
- 9- Mohammad Sadeghi, Ahmad Banakar, "Gender Determination of Fowls by Using Bio-acoustical Data Mining Methods and Support Vector Machine", *Journal of Agricultural Science and Technology (JAST)*, Accepted.
- 10- Meghdad Khazaee, Ahmad Banakar, Barat Ghobadian, Mostafa Agha Mirsalim, Saeed Minaei, Seyed Mohammad Jafari, Peyman Sharghi, "Fault detection of an engine timing belt based on vibration signals using data mining techniques and a novel data fusion procedure", Structural Health Monitoring, 15(5), 2016, 583–598
- 11- Hamid Khafajeh, Ahmad Banakar, Khoshtaghaza M. H, "Studying different parameters in the design of the microwave preheating system in solar desalination", *Desalination and Water Treatment*, vol. 57, issue 25, 2016, pp. 11712-11720
- 12- B. Mostafaei, B. Ghobadian, M. Barzegar, Ahmad Banakar, "Optimization of ultrasonic assisted continuous production of biodiesel using response surface methodology", *Ultrasonics sonochemistry*, 25, 2015, pp. 54-61
- 13- Ahmad Banakar, Hemad Zareiforoush, Mehrdad Baigvand, Mehdi Montazeri, Jalal Khodaei, Nasser Behroozi-Khazaei, "Combined Application of Decision Tree and Fuzzy Logic Techniques for Intelligent Grading of Dried Figs", Journal of Food Process Engineering-Wiley, Online Since October 2016
- 14- Meghdad Khazaee, Ahmad Banakar, Barat Ghobadian, Mostafa Agha Mirsalim, Saeed Minaei, Seyed Mohammad Jafari, "Detection of Timing Belt's Inappropriate Working Condition in Internal

- Combustion Engines using Vibration Signals and Data Mining", Journal of Automobile Engineering, Online since October 2016
- 15- Mohammad Sadeghi, Ahmad Banakar, Meghdad Khazaee, Mohammad reza Soleimani "An Intelligent Procedure for the Detection and Classification of Chickens Infected by Clostridium Perfringens Based on their Vocalization", *Brazilian Journal of Poultry Science*, Vol. 17, No. 4, 2015, 537-544
- 16- Davood Momeni, Ahmad Banakar, Barat Ghobadian, Saeid Minaei "Applications of PCMs and Solar Energy for Greenhouse Heating", *Journal of Energy Research and Environmental Technology(JERET)* , Krishi Snskriti, vol. 1, No. 2, 2015
- 17- Hemad Zareiforoush, Saeid Minaei, Mohammad Reza Alizadeh, Ahmad Banakar "Potential Applications of Computer Vision in Quality Inspection of Rice: A Review", Food Engineering Reviews, Springer, 1-25, 2015
- 18- Hemad Zareiforoush, Saeid Minaei, Mohammad Reza Alizadeh, Ahmad Banakar "Design and performance evaluation of a singulation device for effective positioning of rice kernels in a machine vision-based quality inspection system", *Mechanical Engineering*, 73, 2014, pp. 26539-26545
- 19- Seyed Vahid Mirnezami, Seyed Reza Hassan-Beygi, Ahmad Banakar, Barat Ghobadian "Modelling total weighted vibration of a trailer seat pulled by a two-wheel tractor consumed diesel-biodiesel fuel blends using ANFIS methodology", *Neural Computing and Applications*, DOI 10.1007/s00521-016-2440-3, Vol 27, Nu. 5, 2016
- 20- Ali Motevali, Saeid Minaei, Ahmad Banakar, Barat Ghobadian, Mohammad Hadi Khoshtaghaza, "Comparison of energy parameters in various dryers", *Energy Conversion and Management-Elsevier*, Volume 87, 2014, pp 711-725
- 21- Shiva Gorjian, Barat Ghobadian, Teymour Tavakkoli Hashjin, Ahmad Banakar, "Experimental performance evaluation of a stand-alone point-focus parabolic solar still", *Desalination-Elsevier*, Volume 352, 2014, pp 1-17
- 22- Ali Motevali, Saeid Minaei, Ahmad Banakar, Barat Ghobadian, Hasem Samadi "An Investigation of Energy Consumption, Solar Fraction and Hybrid Photovoltaic-Thermal Solar Dryer Parameters in Drying of Chamomile Flower", *International Journal of Food Engineering (IJFE)*, 10(4), 2014, pp. 697-711
- 23- Meghdad Khazaee, Hojjat Ahmadi, Mahmoud Omid, Ahmad Banakar, Ashkan Moosavian, "Feature-level fusion based on wavelet transform and artificial neural network for fault diagnosis of planetary gearbox using acoustic and vibration signals", Insight Non-Destructive Testing and Condition Monitoring (The Journal of The British Institute of Non-Destructive Testing), Vol. 55 No. 6 June 2013, pp. 323-329
- 24- Ahmad Banakar, Ebrahim Taghinejad "An Electronic Device for Controlling of Diesel Engines Temperature Case Study: Effect of Fan and Water Radiator", *Consumer Electronics Times*, Vol. 3 Iss. 1, 2014, pp. 202-205
- 25- Ali Motevali, Saeid Minaei, Ahmad Banakar, Barat Ghobadian, Hosain Darvishi "Energy Analyses and Drying Kinetics of Chamomile leaves in Microwave-convective dryer", *Journal of the Saudi Society of Agricultural Sciences-Elsevier*, 2014/12/1
- 26- Shiva Gorjian, Teymour Tavakkoli Hashjin, Barat Ghobadian, Ahmad Banakar, "Thermal Performance Evaluation of a Medium-Temperature Point-focus Solar Collector Using Local Weather Data and Artificial Neural Networks", *International Journal of Green Energy*, Vol. 12, Issue 5, 2015
- 27- Shiva Gorjian, Teymour Tavakkoli Hashjin, Barat Ghobadian, Ahmad Banakar, "Thermal Performance Evaluation of a Proposed Point-Focus Solar Collector for Low Power Applications", *Transactions of Mechanical Engineering (IJST)*, Vol. 38, No. M1, pp 263-268, 2014

- 28- Eisa Hazbavi, M. H. Khoshtaghaza, Ahmad Mostaan, Ahmad Banakar "Effect of postharvest hot-water and heat treatment on quality of date palm (cv. Stamaran)", *Journal of the Saudi Society of Agricultural Sciences-Elsevier*, Volume 14, Issue 2, June 2015, Pages 153–159
- 29- Eisa Hazbavi, M. H. Khoshtaghaza, Ahmad Mostaan, Ahmad Banakar "Effect of Storage Duration on Some Physical Properties of Date palm (cv. Stamaran)", *Journal of the Saudi Society of Agricultural Sciences-Elsevier*, Volume 14, Issue 2, June 2015, Pages 140–146
- 30- Hamid Khafajeh, Ahmad Banakar, Barat Ghobadian, Ali Motevali "Drying of Orange Slices in CHP Dryer", *Advances in Environmental Biology*, 7(9), 2013, pp. 2326-2331
- 31- N. Behroozi Khazaei, T. Tavakoli Hashjin, Hassan Ghassemian, M. H. Khoshtaghaza, Ahmad Banakar, "Applied machine vision and artificial neural network for modeling and controlling of the grape drying process", *Computers and Electronics in Agriculture-Elsevier*, Vol. 98, 2013, pp. 205-213
- 32- N. Behroozi Khazaei, T. Tavakoli Hashjin, Hassan Ghassemian, M. H. Khoshtaghaza, Ahmad Banakar, "Applied Machine Vision for Modeling of Grape Drying Process", *Journal of Agricultural Science and Technology (JAST)*, Vol. 15, 2013, 1095-1106.
- 33- Mohammad Zarein, Ahmad Banakar, Hamid Khafajeh, "Mathematical Modeling, Energy Consumption and Thin Layer Drying Kinetics of Carrot Slices Under Microwave Oven", *International Journal of Agriculture and Crop Sciences*, 5(18), 2013, pp. 2057-2063.
- 34- Hosain Darvishi, Hamid Khafajeh, Ahmad Banakar, Mehdi lofti, "Effect of Shape Potato Chips on Drying Characteristics", *International Journal of Agriculture and Crop Sciences*, 5(18), 2013, pp. 2009-2018
- 35- Mehdi Montazeri, Ahmad Banakar, Barat Ghobadian, "Design and Evaluation of a New Absorber Plate for Cascade Solar Still", *Technical Journal of Engineering and Applied Sciences*, 3(15), 2013, pp. 1666-1675
- 36- B. Mostafaei, B. Ghobadian, M. Barzegar, Ahmad Banakar, "Optimization of Ultrasonic Reactor Geometry for Biodiesel Production Using Response Surface Methodology", *Journal of Agricultural Science and Technology (JAST)*, Vol. 15, No. 4, 2013, pp. 697-708
- 37- Ahmad Banakar, S. R. Karimi Akandi, "Genetic Algorithm Optimizing Approach in Rosa Petals Hot Air Dryer", *International Journal of Agricultural and Food Science*, Volume 2, Issue 3, 2012, pp. 60-65
- 38- Hosain Darvishi, Ahmad Banakar, Mohammad Zarein, "Mathematical Modeling and Thin Layer Drying Kinetics of Carrot Slices", *Global Journal of Science Frontier Research*, Volume XII, Issue VII, Version I, June 2012, pp. 57-63.
- 39- Ahmad Banakar, S. R. Karimi Akandi, "A Comparison of Mathematical and Artificial Neural Network Modeling for Rosa Petals using Hot Air Drying Method", *International Journal of Computational Intelligence and Applications*, World Scientific, Volume 11, Number 2, 2012, pp. 1250014-1-13.
- 40- Ali Motevali, Safoora Younji, Reza Amiri Chayjan, Nahid Aghilinategh, Ahmad Banakar, "Drying Kinetics of Dill Leaves in Convective Dryer", *International Agrophysics*, Volume 27, Nu. 1, 2013, pp. 39-47.
- 41- Alireza Mahdavian, Ahmad Banakar, Abazar Mohammadi, Mohsen Beigi, Bahram Hosseinzadeh, "Modelling of Shearing Energy of Canola Stem in Quasi-Static Compressive Loading Using Artificial Neural Network (ANN)", *Middle-East Journal of Scientific Research*, Volume 11, Issue 3, 2012, pp. 374-381.
- 42- Alireza Mahdavian, Ahmad Banakar, Mohsen Beigi, Mahmoud Tavakoli, Hemad Zareiforoush, "Modeling of Some Important Mechanical Properties of Barley Straw using Fuzzy Logic", *International Journal of Agricultural and Food Science*, Volume 2, Issue 1, 2012, pp. 21-29.

- 43- Motevali A, Minaei S, Nikbakht AM, Mahdavin A, Banakar A. Artificial Neural Networks Modelling of Energy and Exergy of Pomegranate Arils Drying. *International journal of computer science and telecommunications*. Accepted
- 44- Alireza Mahdavian, Ahmad Banakar, Mohsen Beigi, Mahmoud Tavakoli, Hemad Zareiforoush, "Modeling of Bending Strength of Wheat Stem by Fuzzy Logic", *Science Series Data Report*, Volume 4, No. 6, 2012, pp. 77-88
- 45- Ahmad Banakar, M. F. Azeem, "Local Recurrent Sigmoidal-Wavelet Neurons in Feed-Forward Neural Network for Forecasting of Dynamic Systems: Theory", *Applied Soft Computing Elsevier*, Volume 12, Issue 3, March 2012, pp. 1187-1200.
- 46- Ahmad Banakar, M. F. Azeem, "Parameter Identification of TSK Neuro-Fuzzy Models", Fuzzy Sets and Systems Elsevier, Volume 179, Issue 1, May 2011, pp. 62-82
- 47- Ahmad Banakar, "Lyapunov Stability Analysis of Gradient Descent Learning Algorithm in Network Training", ISRN Applied Mathematics, Volume 2011, May, doi:10.5402/2011/145801
- 48- Ahmad Banakar, M. F. Azeem, "Wavelet Neuro-Fuzzy Model with Hybrid Learning Algorithm of Gradient Descent and Genetic Algorithm", *International Journal of Wavelets, Multiresolution and Information Processing, World Scientific*, Volume 9, Issue 2, March 2011, pp. 333-359
- 49- M. R. Sazegar, A. Banakar, N. Bahrami, A. Bahrami, M. Baghbani, S. Asrari "Elicit of Chamomile (Matricaria chamomilla L.) Extract and Its Antioxidant Activity in Fat-containing Foods", *Journal of Applied Chemical Research*, 16, 7-14(2011)
- 50- M. R. Sazegar, A. Banakar, N. Bahrami, A. Bahrami, M. Baghbani, P. Nematolahi, M. Mottaghi, "The Antioxidant Activity of Chamomile (*Matricaria chamomilla* L.) Extract in Sunflower Oil", *World Applied Sciences Journal*, Volume 9, Number 8, pp. 873-878, 2010
- 51- Ahmad Banakar, M. F. Azeem, "Artificial Wavelet Neural Network and Its Application in Neuro-Fuzzy Models", *Applied Soft Computing Elsevier*, Volume 8, Issue 4, September 2008, pp. 1463-1485.
- 52- Ahmad Banakar, M. F. Azeem, "Artificial Wavelet Neuro-Fuzzy Model based on parallel Wavelet Network and Neural Network", *Journal of Soft Computing Springer*, Volume 12, Issue 8, March 2008, pp. 789-808.
- 53- Ahmad Banakar, M.F. Azeem, Vinod Kumar, "Comparative Study of Wavelet Based Neural Network and Neuro-Fuzzy Systems", *International Journal of Wavelets, Multiresolution and Information Processing, World Scientific*, Volume 5, No 6, November 2007, pp. 879-906.

### d) Collected of Conference Publication

#### **English:**

- 1. Mohammad Sadeghi, Ahmad Banakar, Abdolhamid Shushtari, "Artificial Intelligence in automatic detection of Avian Diseases based on Sound Signals", CIGR-AgEng, Denmark, 2016
- 2. Mahdi Ghaderi, Ahmad Banakar, Aliakbar Masoudi, "Gender determination of eggs using dielectric properties", CIGR-AgEng, Denmark, 2016
- 3. Meghdad Khazaee, Ahmad Banakar, Barat Ghobadian, Mostafa Agha Mirsalim, Seyed Mohamad Jafari, "Condition classification of an automobile timing belt based on vibration signals and ANN classifier", The 2nd Science One International Conference on Information Technology, Dubai, UAE, 21-23 Jan. 2014

- 4. Seyed Vahid Mirnezami, Seyed Reza Hassan-Beigi, Rahman Abdolahzade, Ahmad Banakar, Barat Ghobadian, Mehdi Malati "INVESTIGATION OF BLENDED DIESEL-BIODIESEL EFFECT ON USER CONVENIENCE DUE TO TRANSMITTED VIBRATION USING ANFIS METHOD", II European Workshop on Renewable Energy Systems, Antalya, TURKEY, 20-30 Sep. 2013
- 5. Shiva Gorjian, Teymour Tavakkoli Hashjin, Barat Ghobadian, Ahmad Banakar, "Experimental Investigation and Performance Analysis of a Point-focus Parabolic Solar Still", 21st Annual International Conference on Mechanical Engineering-ISME2013, Tehran, Iran, 7-9 May, 2013
- 6. Shiva Gorjian, Teymour Tavakkoli Hashjin, Barat Ghobadian, Ahmad Banakar, "Modeling production of a point-focus parabolic solar still using local weather data and artificial neural networks", 21st Annual International Conference on Mechanical Engineering-ISME2013, Tehran, Iran, 7-9 May, 2013
- 7. Shiva Gorjian, Teymour Tavakkoli Hashjin, Barat Ghobadian, Ahmad Banakar, "Thermal performance of a Point-focus Solar Steam Generating System", 21st Annual International Conference on Mechanical Engineering-ISME2013, Tehran, Iran, 7-9 May, 2013
- 8. Shiva Gorjian, Teymour Tavakkoli Hashjin, Barat Ghobadian, Ahmad Banakar, "Modeling Global Solar Radiation over Iran based on Meteorological Data Using ANN Technique", 11th Iranian Conference on Intelligent Systems, Tehran, Iran, 15-17 December, 2013
- 9. Shiva Gorjian, Teymour Tavakkoli Hashjin, Barat Ghobadian, Ahmad Banakar, "Study of Heat Transfer by Low-Velocity Forced Convection of Parabolic Dish Solar Cylindrical Receiver", The European Conference & Workshop on Renewable Energy Systems,
- 10. B. Mostafaei, B. Ghobadian, M. Barzegar, A. Banakar, E. Fayyazi, "Optimization of Ultrasonic Reactor Geometry for Biodiesel Production Using Response Surface Methodology", The European Conference & Workshop on Renewable Energy Systems,
- Ahmad Banakar, Naser Behrouzi Khazei, Jalal Khodaei, "Sorting Figs Based on Co-occurrence Texture Properties and Neural Networks", International Conference of Agricultural Engineering CIGR-AgEng (CIGR 2012) / International workshop on Computer Image Analysis in agriculture, Valencia, Spain, July 8-12, 2012
- 12. Sayed R. Karimi Akandi, Ahmad Banakar, "A Genetic Algorithm Approach in Hot Air Drying Optimization of Rosa Petals Based on Neural Network Modelling", International Conference of Agricultural Engineering CIGR-AgEng (CIGR 2012), Valencia, Spain, July 8-12, 2012
- 13. Nasser Behroozi Khazaei, Teymour Tavakoli Hashjin, Hassan Ghassemian, Ahmad Banakar, "Modeling of Grape Drying Process", The First Middle East Drying Conference, Feb. 2011
- 14. Ahmad Banakar, Ebrahim TaqiNejad, "Effective of Fan belt and Water Radiator in Diesel Engine Temperature", International Conference on Emerging Trends in Engineering and Technology (ICETET-2010), Goa, India, November, 19-21, 2010
- M. F. Azeem, Ahmad Banakar, "Recurrent Sigmoid-Wavelet Neurons for Forecasting of Dynamic Systems", IEEE International Conference. on Information Reuse and Integration, Hilton Hotel, Las Vegas, USA, August, 13-15, 2007
- 16. Ahmad Banakar, M. F. Azeem, "A Comparison Study of Different Types of Non-Orthogonal Wavelet in Neuro-Fuzzy Model based on Time Series Forecasting", International Conference on Intelligent Systems & Networks IISN-2007, COMPUTATIONAL INTELLIGENCE LAB (CI-LAB), SOCIETY FOR EDUCATION AND RESEARCH (SER), Jagadhri-135003, Distt. Yamuna Nagar, Haryana (INDIA), February, 2007
- 17. Ahmad Banakar, M. F. Azeem, "Parameter Estimation of Neuro-Fuzzy Model by Parallel and Series-Parallel Identification Configurations", FUZZ-IEEE 2007, London, UK, July 2007
- 18. M.F. Azeem, Ahmad Banakar, Vinod Kumar, "Comparative Study of Different Types of Wavelet Functions in Neural Network", IEEE World Congress on Computational Intelligence (WCCI2006)-

- International Joint Conference on Fuzzy System (FUZZ-IEEE 2006), Neural Networks (IJCNN2006) and Evolutive Computation (CEC 2006), Vancouver, BC, Canada, 16-21 July 2006.
- Ahmad Banakar, M. F. Azeem, "Generalized Wavelet Neural Network Model and its Application in Time Series Prediction", IEEE World Congress on Computational Intelligence (WCCI2006)-International Joint Conference on Fuzzy System (FUZZ-IEEE 2006), Neural Networks (IJCNN2006) and Evolutive Computation (CEC 2006), Vancouver, BC, Canada, 16-21 July 2006.
- 20. Ahmad Banakar, M. F. Azeem, "Generalized Wavelet Neuro-Fuzzy Model and its Application in Time Series Forecasting", 2nd Symposium on Evolving Fuzzy Systems, Ambelside, Lake Discrict, UK, 07-09 September, 2006.
- 21. Ahmad Banakar, M.F. Azeem, "Input Selection Based on TSK Fuzzy Model and Modified Mountain Clustering", IEEE IS'06; 3rd IEEE Conference On Intelligent Systems, University of Westminster, London, UK, 04-06 September 2006.
- <sup>22.</sup> Ahmad Banakar, M.F. Azeem, "Identification and prediction of nonlinear dynamical plants Based on TSK fuzzy model and Wavelet Neuro-Fuzzy model", IEEE IS'06; 3<sup>rd</sup> IEEE Conference On Intelligent Systems, of Westminster, London, UK, 04-06 September 2006.
- 23. Ahmad Banakar, M.F.Azeem, "A New Artificial Wavelet Neural Network and its Application in Wavelet Neuro-Fuzzy", IEEE IS'06; 3rd IEEE Conference On Intelligent Systems, University of Westminster, London, UK, 04-06 September 2006.
- 24. Ahmad Banakar, M.F. Azeem, "Comparative Study of Different Type of Wavelet in Artificial Wavelet Neuro -Fuzzy Model", 2006 IEEE Mountain Workshop on Adaptive and Learning Systems (SMCals/06), USA