



Salem Banooni

Assistant Professor

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Shahid Chamran University of
Ahwaz

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Education

- 2003-2008
Ph.D. Mechanical Engineering, Iran University of Science & Technology, Tehran, Iran
Thesis: "**Experimental Study and Modeling of Bread Baking in Hot Air Impinging Jets Medium**"
- 2001- 2003
M. Sc. Mechanical Engineering, Iran University of Science & Technology, Tehran, Iran
Thesis: "**Modeling of Gas Turbine Efficiency Augmentation by Fogging of Inlet Air**"
- 1997-2001
B.Sc. Mechanical Engineering, Iran University of Science & Technology, Tehran, Iran
Thesis: "**Design of 100 KW Solar Power Plant with Parabolic Collectors**"

Interests Fields

- Heat & Mass Transfer
- Impingement Heat Transfer
- Food Processing
- Industrial Drying
- Gas Turbine Inlet Air Cooling Methods
- Turbulence Modelling
- Neural Networks Modelling & Genetic Algorithm Optimization
- Energy Management
- Renewable Energy and Fuel Cells
- Fuels Combustion & Pollution Modelling

Teaching Areas

Graduate Courses:

- Heat Transfer
- Thermodynamics
- Fluid Mechanics
- Refrigeration
- HVAC Systems
- Thermal Power Plants
- Heat Exchangers
- Fuels & Combustion
- Gas Dynamics

Undergraduate Courses:

- Convection Heat Transfer
 - Turbulence
 - CFD
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Publications

Journal Papers:

- Banooni S., Hosseinalipour S. M., Mujumdar A. S., Taheran E., Bahiraei M., Taherkhani P. **Baking of flat bread in an impingement oven: An experimental study and quality aspects**, *Drying Technology*, 2008, vol. 26(7), 902-909
- Banooni S., Hosseinalipour S. M., Mujumdar A. S., Taheran E., MashaiEKhi M. **Impingement heat transfer effects on flat bread**, *Drying Technology*, 2008, vol. 26(7), 910-919
- Banooni S., Hosseinalipour S., Taherkhani P., Bahiraei M. **Baking of flat bread in an impingement oven: Modeling and optimization**, Accepted in *Drying Technology*, 2008

Conference Papers:

- Banooni S., Hosseinalipour S.M., Taherkhani P. **Mathematical modeling of simultaneous heat and mass transfer in Iranian bread during baking**, ISME, Isfahan, Iran, 2006
- Banooni S., Hosseinalipour S.M. **Bread colour change during baking in an impingement oven**, Food industry congress, Tehran, Iran, 2008
- Banooni S., Hosseinalipour S. M. **Bread Volume measurement using image processing**, Food industry congress, Tehran, Iran, 2008
- Banooni S., Hosseinalipour S. M. **Experimental study of bread baking in an impingement oven**, Food industry congress, Tehran, Iran, 2008
- Banooni S., Hosseinalipour S. M. **Design of impingement oven for the study of bread baking process**, Food industry congress, Tehran, Iran, 2008
- Banooni S., Hosseinalipour S. M. **A good turbulence model for the modeling of impinging jets**, Fluid dynamics conference, Tehran, Iran, 2008
- Banooni S., Hosseinalipour S. M. **Development of measurement methods for the main parameters of the Iranian bread baking process in the impinging jet medium**, Fluid dynamics, Tehran, Iran, 2008
- Banooni S., Hosseinalipour S. M. **Development of instrumented impingement oven for the study of Iranian flat bread baking**, ISME, Tehran, Iran, 2008
- Banooni S., Hosseinalipour S. M. **Impact of impinging jets on moisture variation of the Iranian bread during baking**, ISME, Tehran, Iran, 2008
- Banooni S., Hosseinalipour S. M. **3D simulation of heat transfer and flow field of impinging jets using v^2-f** , ISME, Tehran, Iran, 2008
- Banooni S., Mirshams M. A. **Energy management in imam Khomeini sugar cane"**, 1th Conference on fuel conservation in industry, Iran, 2005
- Banooni S., Mirshams M. A. **Solutions for energy conservation in sugar cane industry**, 1th conference on fuel conservation in industry, Iran, 2005
- Banooni S., Mirshams M. A. **High efficiency burner in industry"**, 1th conference on fuel conservation in industry, Iran, 2005
- Banooni S., Mirshams M. A. **Energy management in Isfahan refinery residential complex**, 3th conference on fuel conservation in buildings, Iran, 2004
- Banooni S., Mirshams M. A. **Solar applications in buildings**, 3th conference on fuel conservation in building, Iran, 2004

Honors & Awards

- Wining the best paper awards from the food industry congress for paper subject of **"Bread Volume Measurement Using Image Processing"** Tehran, 2008
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Inventions & Innovations

- **A novel impingement oven for Iranian flat bread baking**, Iran industry ownership, Patent no. 35841
- **On-line measurement system of bread baking parameters in hot medium**, Iran industry ownership, Patent no. 35842

Research and Industry Experience:

- **Research Contract- 2007-2008**, Municipality of Arak, Energy conservation in residential and Commercial Buildings of Markazi province
- **Research Contract- 2006-2007**, Deabal Khozaie sugar cane factory, Energy conservation in Deabal Khozaie Sugar Cane Factory
- **Research Contract- 2006-2007**, Amir Kabir sugar cane factory, Energy conservation in Amir Kabir Sugar Cane Factory
- **Research Contract- 2006-2007**, Darogar company , Energy conservation in Darogar company
- **Research Contract- 2006-2007**, Lamp Pars factory , Energy conservation in Lamp Pars factory
- **Research Contract- 2005-2006**, Iran Wood and Paper Factory , Energy conservation in Iran Wood and Paper Factory
- **Research Contract- 2005-2006**, Glucosan factory, Energy conservation in Glucosan Factory
- **Research Contract- 2005-2006**, Iran fuel conservation organization, Energy conservation in 13 factories of brick, tile and chinaware industries
- **Research Contract- 2005-2006**, Iran fuel conservation organization, Standard codify of energy consumption in brick, tile and chinaware industries
- **Research Contract- 2004-2005**, Isfahan oil refinery company, Energy conservation in Isfahan oil refinery residence complex
- **Research Contract- 2004-2005**, Ministry of energy, Design of gas turbine inlet air fogging system for gas turbines of shahid Rejaie and Neishabour power plant
- **Research Contract- 2003-2004**, Ministry of energy, Availability of distinguished power generation with micro- turbines

Personal

Married, excellent health, active in sports, interested in traveling

Contact

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