

## Curriculum Vitae

**Name:** Füsun  
**Surname:** Çetin  
**Title:** Assistant Professor Dr.  
**Place of Birth:** İstanbul  
**Date of Birth:** 15.12.1965  
**E-mail:** [fusuncetin@aydin.edu.tr](mailto:fusuncetin@aydin.edu.tr)  
**Phone :** 0212 411 6100 / 57003

### 1. Education

**PhD:** Nuclear Engineering Program, Istanbul Technical University, Nuclear Energy Institute, Nuclear Technology Department, 2001.

**MSc:** Nuclear Engineering Program, Istanbul Technical University, Nuclear Energy Institute, Nuclear Applications Department, 1992.

**B. Sc.** Physics Engineering Program, Faculty of Science and Letters, 1986.

### 3. Professional Experiences

- 1989-91, International Hospital-Tam Tıp Ultrases AS, Nuclear Medicine Department, Physics Engineer,
- 1992-2015 Istanbul Technical University, Energy Institute (Nuclear Energy Institute up to 2002) Research Assistant Dr. (from 2001)
- Since 2015 April Istanbul Aydın University, Assistant Professor.

- **Abroad Assignment Experience**

2004 September -2005 February: Johannes Gutenberg Universitat Mainz, Institute für Kernchemie, Germany-Mainz, As visiting Researcher.

#### **Diğer**

İTÜ TRIGA MARK II Research Reactor Operating Experience.

#### 4. Administrative Experiences

2002- 2005, Deputy Director of ITU Energy Institute

2002- 2005, Member of Executive Board of ITU Energy Institute

2002- 2005, Member of Academic Board of ITU Energy Institute

#### 5. Research Interest Area

- Nuclear Imaging Techniques
- Nuclear Pumped Lasers
- Interaction of Radiation with Matter and Charged Particle Transport
- Direct Energy Conversion
- Dynamics of Gas Pumped by Nuclear Reaction Products
- Energy Policy

#### 6. Publications

##### a. Theses

**Fusun Çetin Şişman**, “Determination of Performance and Resolution in Radiographical Imaging”, MSc Thesis, ITU Nuclear Energy Institute, 1992.

**Fusun Çetin Şişman** , “Modelling and Analysis of Coupled Variation of Energy Deposition Density with Gas Density in a Nuclear-Pumped Laser Excited by  $^3\text{He}(n,p)^3\text{H}$  Reactions”, PhD Thesis, ITU Nuclear Energy, 2001.

##### b. International Papers in Journals

- Durmayaz, A., Şişman, A., **Çetin Şişman, F.**, Yavuz, H., “Xenon poisoning method for the determination of the average thermal neutron flux, macroscopic fission and total absorption cross sections “, *Kerntechnik* **62** (5-6), 245-248, 1997. (Yayın tarihi itibarıyla SCI A2 )
- **Çetin , F.**, “A dynamic model for power deposition in He-3 lasers by He-3(n,p)H-3 reactions”, *Nuclear Instruments & Methods in Physics Research Section B- Beam Interactions with Materials and Atoms* , **222** (1-2), 145-162, 2004. (Yayın tarihi itibarıyla SCI A1)
- **Çetin , F.**, “On the optimisation of operating pressure for a nuclear-pumped laser excited by He-3(n,p)H-3 reactions”, *Nuclear Instruments & Methods in Physics Research Section B- Beam Interactions with Materials and* **251**(1), 274-288, 2006. (Yayın tarihi itibarıyla SCI A1)
- **Cetin F.**, “The gas motion due to non-uniform heating by  $^3\text{He}(n,p)^3\text{H}$  reactions in the nuclear-pumped  $^3\text{He}$  -lasers”, *Six International Conference of the Balkan Physical Union Book Series, AIP Conference Proceedings*, **899**, 103-104, 2007.

- **Çetin, F.**, “*The effect of neutron attenuation on power deposition in nuclear pumped  $^3\text{He}$ -Lasers*”, Six International Conference of the Balkan Physical Union Book Series, AIP Conference Proceedings, **899**, 101-102, 2007.
- Saygın, H.& **Çetin F.**, “*New Energy Paradigm and Renewable Energy: Turkey’s Vision*”, Insight Turkey, **12** (3), 107-128, Jul-Sep, 2010.

### c. International Conference Papers

- Durmayaz A., Şişman A., **Çetin Şişman F.**, Yavuz H., “*Determination of the effect of xenon-135 poisoning on reactivity for the itu triga mark II reactor*”, 14th European TRIGA Conference, 22-25 Sep, 1996. Mainz, Germany.
  - **Cetin F.**, “*The effect of neutron attenuation on power deposition in nuclear pumped  $^3\text{He}$ -Lasers*”, 6<sup>th</sup> International Conference On Balkan Physics Union, 22-26 Aug, 2006, Istanbul-Turkey.
  - **Cetin F.**, “*The gas motion due to non-uniform heating by  $^3\text{He}(n,p)^3\text{H}$  reactions in the nuclear-pumped  $^3\text{He}$  -lasers*”, 6th International Conference On Balkan Physics Union, 22-26 Aug, 2006, Istanbul, Turkey.
  - **Cetin F.**, “*Determination of temporal variations of gas temperature in itu triga mark II reactor-pumped  $^3\text{He}$ -laser excited by  $^3\text{He}(n,p)^3\text{H}$  reactions*”, Annual Meeting on Nuclear Technology , 22-24 May, 2007, Karlsruhe, Germany.
  - **Cetin, F.**, “*Optimization of reactor power by taking into consideration temperature increase in a reactor pumped  $^3\text{He}$ -Xe laser*”,Jahrestagung Kerntechnik, Annual Meeting On nuclear Technology, 12-14 May, 2009, Dresden, Germany.
- Cetin, F.**, “*Variation of Pressure with Time in a  $^3\text{He}$ -laser Pumped by Neutrons from ITU TRIGA MARK II Reactor*“, WASET 2010 , 24-26 Nov., 2010 , Venice, Italy
- Saygın, H., **Cetin, F.**, “*Recent Developments in the Renewable and Nuclear Energy Policies of Turkey*”, WASET 2010 , 24-26 Nov., 2010 , Venice, Italy
  - **Cetin F.**, “*Variation of gas temperature with tube radius in a reactor pumped  $^3\text{He}$  - laser and its effect on optimization of tube parameters*”, Turkish Physical Society, 24 th International Physics Congress, 28-21 Aug, 2007, Inonu Universitesi, Malatya, Turkey.
  - **Cetin F.**, “*The Effect of variations of power deposition from tritons and protons on optical homogeneity of  $^3\text{He}$  gas volumetrically pumped by itu triga mark II reactor*”, Turkish Physical Society 25 th International Physics Congress, 25-29 Aug, 2008, Bodrum, Turkey.
  - **Cetin F.**, “*Variation of density gradients with the reactor power in a reactor pumped  $^3\text{He}$  -laser*”, Turkish Physical Society 25 th International Physics Congress, 25-29 Aug 2008, Bodrum, Turkey.
  - **Çetin F.**, Saygın H., “*Consideration of Turkey’s Choice of Nuclear Power Reactor Technology*”, Turkish Physics Society 30th International Physics Congress, 2-5 September , 2013, Istanbul, Turkey.
  - **Cetin,F.**, “*Effect of the Limitations due to Overheating of Laser Gas on the Performance of a Nuclear Pumped  $^3\text{He}$  Laser*”, Turkish Physical Society 31<sup>th</sup> International Physics Congress, 21-24 July 2014, Bodrum, Turkey.

- **Cetin, F.** and Saygin, H., “*Turkey’s Choice for Sinop Nuclear Power Plant Project: Atmea 1 Reactors and Basic Safety Properties*”, Turkish Physical Society 31<sup>th</sup> International Physics Congress, 21-14 July 2014, Bodrum, Turkey.

**d. National Articles**

- **Cetin, F.,**” Energy Policies of European Union and Turkey’s Alignment with EU Legislation”, *Tel & Kablo*, **1**, 2008.

**e. National Conference Papers**

- **Cetin, F.,** “*Determination of Resolution in Radiographic Imaging*”, V. National Nuclear Sciences Conference, 1991 May, İzmir , Turkey
- **Çetin, F. ,** “*Calculation of Refractive Index Gradients in the Laser Gas Excited by  $^3\text{He}(n,p)^3\text{H}$  Reactions*”, 9. National Nuclear Science and Technology Conference, September 14-16 ,2005 İzmir, Turkey.

**f. Book or Book Chapter**

- Saygin, H., **Çetin, F. ,** “*Recent development in renewable energy policies of Turkey, Renewable energy-Trends and Applications*”, Chapter 2, InTech-Open Access Publisher, Dec, 2011, Hırvatistan.

**g. Reports**

- **Cetin, F.,** “Energy Policies of European Union (EU) and Turkey’s Alignment with EU Legislation”, ELENKE, 2008, July.