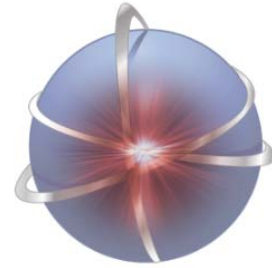


# **TESNAT 2017**

**3rd International Conference on  
Theoretical and Experimental Studies in  
Nuclear Applications and Technology**

10-12 May 2017 ukurova University, Adana, Turkey

**3<sup>rd</sup> International Conference on  
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Technology**



***Abstract Book***

**Editors**

Eyyup TEL, Abdullah AYDIN, İsmail Hakkı SARPÜN

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## **Editors**

**Eyyup TEL  
Abdullah AYDIN  
İsmail Hakkı SARPÜN**

Dear Colleagues,

Welcome to the 3<sup>rd</sup> International Conference on Theoretical and Experimental Studies in Nuclear Applications and Technology (TESNAT 2017). This conference is the third step of the TESNAT Conference series. TESNAT 2015 was held in Osmaniye Korkut Ata University, Osmaniye and TESNAT 2016 was held in Mustafa Kemal University, Hatay. The world of nuclear physics is an exciting area in which to work, and we'll continue to meet and bring inspired people together in conference like this, to ensure TESNAT remains at the cutting edge.

We intend in this conference to discuss and compare all applicable methods as are being applied at present in nuclear physics. The problems faced in these fields at present are focused in the development of new methods and in the improving of existing techniques to achieve an understanding of existing experimental data and in predicting with high reliability new properties and processes. We propose this conference as a mean to bring together all these related communities with the goal of creating an enriching dialog across the disciplines. The conference will give an overview on the theoretical and experimental challenges in nuclear physics and applications.

We'd like to thank each of you for attending our conference and bringing your expertise to our gathering. You are truly our greatest asset today and tomorrow, and we could not accomplish what we do without your support and leadership.

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**RM001**

## **Preliminary study on natural radionuclide concentrations in some soil samples**

**YUKSEL M.<sup>1</sup>, DOGAN T.<sup>2</sup>, KOCAKOC M.<sup>2</sup>, TOPAKSU M.<sup>1</sup>**

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*<sup>2</sup>Çukurova University, Vocational School of İmamoğlu, Adana, Turkey*

The purpose of this work is to conduct a preliminary study about determination of natural radionuclides concentration in some villages of Tarsus. In order to obtain basis data of the content of radionuclides, firstly, the soil samples were collected from Alibeyli, Kurbanlı, Kurtçukuru, Sanlıca and Yanıkkışla villages. The soil samples were screened and dried at 110°C for 24 hours and then they were packaged using plastic sample containers. After the sample containers were waited three weeks in laboratory to provide a permanent balance between <sup>226</sup>Ra and <sup>222</sup>Rn, they were counted using a gamma spectrometer by HPGe detector. The mean activity concentrations of <sup>226</sup>Ra, <sup>232</sup>Th, and <sup>40</sup>K were determined as 36.86±1.54, 23.02±2.38 and 287.5±6.96 Bq/kg, respectively