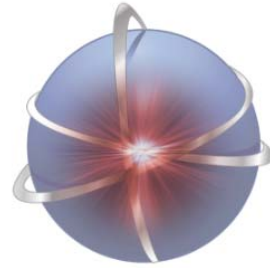


TESNAT 2017

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

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

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Abstract Book

Editors

Eyyup TEL, Abdullah AYDIN, İsmail Hakkı SARPÜN

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Dear Colleagues,

Welcome to the 3rd 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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RM003

Measurements of radioactivity levels in soil samples from southeastern Anatolia region, Turkey

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In local, regional and global context, it is necessary to study the environmental radioactivity. Natural radioactivity (^{238}U , ^{232}Th , ^{40}K), originates from radioactive elements in the earth crust and from extraterrestrial sources, and artificial radioactivity (^{137}Cs), the result of man-made actions, are the main objects of this study. The activity concentrations in 18 soil samples collected from Southeastern Anatolia (Adıyaman, Gaziantep, Şanlıurfa cities and their surrounded districts) measured through HPGe gamma ray spectrometry at Çukurova University, Physics Department. The average values of ^{238}U , ^{232}Th , ^{40}K , ^{137}Cs activity concentration that soil samples contain were found to be 14.48 Bq/kg, 19.15 Bq/kg, 288.92 Bq/kg, 5.16 Bq/kg, respectively. The results obtained in this study were compared with the international average values reported by UNSCEAR, 2000.

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