



**UNIVERSITY GRANTS COMMISSION**

**BAHADUR SHAH ZAFAR MARG**

**NEW DELHI-110001**

**Evaluation Report and**

**Summary of Project**

"A Comprehensive Study on the Radioactive Eco-Hazards caused by Geological Substances used as Building Materials and Groundwater Radon Concentration in Granite Region of Karnataka State"

**Principal Investigator**

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## **Committee for the evaluation of final report of the UGC major project**

The committee for the evaluation of final report of the UGC major project submitted by Dr. J. Sannappa, Principal investigator was held on 9<sup>th</sup> February-2019 at 11:00 am in the Department of PG Studies and Research in Physics, Kuvempu University, Shankaraghatta.

We had gone through the final report & summary of the project entitled on "A Comprehensive Study on the Radioactive Eco hazards Caused by Geological Substances used as Building materials and Ground water in Granite regions of Karnataka State" of Dr. J. Sannappa in detail. The study in its entirety as covered all the objectives of the proposed project. The study covers ambient gamma radiation, distribution of radionuclides in soil, rocks and building materials, measurement of radon in different types of water sources and radon, thoron and their progenies in indoor atmosphere of some places of granitic regions of Karnataka state. The study area covers some granitic. Granitic-gneises and schist ingenious rocks present in some places of Tumkur, Ramanagara, Chithradurga and Shivamogga districts.

The sophisticated instruments such as gamma dose survey meter, NaI(Tl), HPGe detector, Emanometry techniques, SSNTD(LR115Film) were used in the study. The report reveals that, the studied materials contain higher activity of primordial radionuclides and the average activity concentrations are slightly higher than the world and Indian average values. However, the total dose received by the public of the study area is within the reference level proposed by ICRP. Hence, from the health point of view our present study is important. The project work has good outcomes in the form of 12 publications in reputed peer reviewed international journals. Total 19 papers were presented in international national conferences. This testimony to the quality and significance of the work.

The final report of the project provides the base line data to the society which will serve as a data base of information, that could be useful for further research and helps for highlighting regions with elevated natural radioactivity in the country. This project also creates awareness and educate the people to select the building materials containing lesser radioactivity content in order to reduce indoor radon concentration and radiation exposure. Hence we conclude, The project is successfully completed and fit to be submitted to the UGC.