



Aims and Scope

The journal *Advances in Applied Research* was established in 2009 by PSGR Krishnammal College for Women, Coimbatore, Tamil Nadu, India. The journal publishes peer-reviewed research papers in the form of full-length original articles, short communications, technical articles and review articles in all areas of Material Sciences and Agricultural Sciences.

Scope

The overall goal of *Advances in Applied Research* is to build significant knowledge and seek novel approaches to address the fundamental and industrial problem in the area of Material and Agricultural Sciences. *Advances in Applied Research* publishes article that deal with the synthesis, processing, characterization, understanding the mechanism of interaction between the materials and theoretical simulation in the area of Material Sciences. The journal also publishes the results of scientific research in disciplines of Agricultural Sciences that includes Agricultural Engineering, Soil Science and Agricultural Chemistry, Plant Pathology, Horticulture and Agronomy and Biotechnology.

The researchers can submit articles on the below sub-topics in **Material Sciences**, but not limited to:

Biomaterials: Synthesis and characterization of the materials that are related to health, biomedical application, environment and energy with novel properties; materials which involve surface interactions and its applications; hypothesis-driven synthesized biomaterials and characterization; novel materials that are linked to biology, molecular, micro- and macro based materials through various synthetic pathways; Structural biology as it relates structure to function for biologically derived materials that have various applications; methods for biomaterial characterization; processing of biomaterials to achieve specific functionality; structure-property relationships in functional materials and nanomaterials with interesting properties.

Nanomaterials: Synthesis and characterization of the various nanomaterials through different approaches; Functional nanomaterials and nanostructures of different compositions; engineering and characterization of functional nanomaterials, other nanostructure materials including nanotubes, nanowires and nanorods.

Food materials: Novel food materials such as alternative protein, novel food ingredients and bioactive substances; food engineering and manufacturing technologies including processing, preservation and packaging; nano food packaging materials for food safety and extending food life; applications of nanotechnology for detection of bacteria in packaging; food safety by increasing the barrier properties and for production of stronger flavors and color quality; Function of food in relationship with its structure, composition, nutrition and health benefits.

Papers can be submitted on the below sub-topics in the specified areas of **Agricultural Sciences**, but not limited to:

Agricultural Engineering: Food process engineering; dehydration and storing; biomass valorisation; production engineering; construction and utilization of machines and bioenergy.

Soil Science and Agricultural Chemistry: Soil morphology; soil biology; soil physics; soil chemistry; pedology; soil fertility and plant nutrition; soil conservation and management; biofortification for enrichment of nutrients in crop produce; fertilizers, pesticides and insecticides (chemistry, composition and processing); toxicology and metabolism of agrochemicals; agrochemicals and environmental issues; organic farming.

Plant Pathology: Virology; bacteriology; mycology; plant disease diagnosis and management (genomics and improved diagnostics; biological control of plant diseases); pathogens; host-pathogen interactions; impact of climate change on disease dynamics; post-harvest diseases; breeding for resistance (transgenic resistance against biotic stresses).

Horticulture and Agronomy: Plantation crops; molecular studies and related areas with direct application in horticulture; technical aspects (engineering, crop processing, storage, and transport); experimental and theoretical aspects of field-based agronomy and crop science; field level research in tree crops, agricultural and horticultural crops.

Biotechnology: Molecular breeding for improvement of disease resistance in crops improvement of nutritional properties, and development of resilient crop varieties; bioprospecting for insecticidal, antimicrobial and pharmacologically active compounds from biological sources; isolation, purification and production of commercially important enzymes from natural sources; cell culture studies in prospective plants for insecticidal properties and for production of pharmaceutical products.