# SPECIMEN APPLICATION FORM

Photo

Name	
Academic Qualification	
Official position	
Organization	
Tel. Off	
Cell	
E-mail	
Address	

Research/Teaching Experience -

Have you applied for this course earlier?	
Have you attended this course at NIFA earlier?	
Do you need accommodation?	

#### Applicant's Signature

Recommendation of Head of Establishment: Note: Application form must be accompanied by a copy of CNIC & recent photograph. **Download Application and Brochure** http://nifa.org.pk/annualtrainingcourse.htm

#### **Organizing Committee**

Dr. Gul Sanat Shah, DCS/Director Dr. Gul Zamin Khan, PS/Course Coordinator Mr. Muhammad Irfan, JS/Co-Coordinator Mr. Sultan Muhammad, C.O/Member Mr. Abid Munir, Sr.Tech/Member

### The Host City and Province

The venue of the course will be Nuclear Institute for Food and Agriculture (NIFA) located on G.T. Road east of Peshawar, in the Khyber Paktunkhwa Province. The city of Peshawar is historical and perched on gateway of the Central Asian Republics. This has been a route for many warriors, saints and trade caravans on their way to India. Peshawar's strategic location on the crossroads of Central Asia and South Asia has made it one of the most culturally vibrant and lively cities in this region. Over the years, Peshawar has evolved into one of Pakistan's most ethnically and linguistically diverse cities and presents a blend of modern and traditional attributes. The Khyber Pakhtunkhwa province itself is famed all over the world for its natural beauty encompassing snowcapped mountains, verdant valleys, fruit laden orchards and serpentine rivers making it an excellent tourist attraction. In addition to this, the province of Khyber Pakhtunkhwa has well developed industrial estates located in different cities. Participants will be provided an opportunity to see the working of some relevant industries in one of the industrial states.

# CONTACT Dr. Gul Zamin Khan, PS/Course Coordinator Mr. Muhammad Irfan, JS/Course Coordinator Nuclear Institute for Food and Agriculture (NIFA), Tarnab, Peshawar Phone: 091-2964060-62 (Ext. 306, 304) Mob: 03313811979, 03366449394 Fax: 091-2964059 Email: zaminkhan@yahoo.com mirfan\_ramdani@yahoo.com



36<sup>th</sup>

# POST GRADUATE TRAINING COURSE

on

## THE USE OF NUCLEAR AND OTHER TECHNIQUES IN FOOD & AGRICULTURAL RESEARCH

October 04 - 15, 2021



#### NUCLEAR INSTITUTE FOR FOOD & AGRICULTURE (NIFA), PESHAWAR

www.nifa.org.pk

### Introduction

The Nuclear Institute for Food and Agriculture (NIFA), an establishment of Pakistan Atomic Energy Commission, is actively involved in basic and applied research in selected areas of food and agriculture. The institute is well equipped with modern laboratory facilities and trained manpower. It maintains an active collaboration with PAEC establishments and other national and international organizations engaged in similar pursuits. Utilizing the expertise and the facilities available, NIFA organizes, annually, a two-week postgraduate training course on the applications of nuclear and other techniques in food and agricultural research for students, researchers and academicians.

The course is designed to acquaint the participants with theoretical and practical aspects of nuclear and other contemporary techniques. Apart from lectures in the specialized fields, the course also provides the participants a practical exposure to various on-going research projects at NIFA. The faculty comprises of subject experts from NIFA as well as other organizations.

## **Required Qualification**

The minimum qualification required is B.Sc. / B.Sc. (Hons.) Agriculture.

# Application

Applications duly completed on the prescribed format should reach to the course coordinator on or before **September 21, 2021**. In-service candidates should apply through proper channel.

# **Registration Fee**

Rs. 3000/- for Professionals Rs. 1500/- for Students

### Award of Certificates

Certificates will be awarded to the participants for successful completion of course at the concluding ceremony.

#### Accommodation/Travel

The participants or the nominating agencies will bear the expenses for travel and stay at Peshawar. NIFA will, however, help in arranging accommodation (on payment) if requested in advance. Pick and drop facility will be provided free of cost.

# Outline of the Training Course

#### Lectures

#### A. Radiation Concepts

- Fundamentals of Radiations,
- Radioisotopes and their Application in
- Food, Agriculture, Health, Industry and Environment
- Food Irradiation for Food Safety & Security
- B. Food Nutrition and Engineering
  - Food Canning & Extrusion Technology
  - Nutritional Evaluation of Foods
  - Facts about Dietary Fats
- C. Crop Improvement
  - Mutation Breeding
  - Biotechnology
- D. Plant Protection
  - Nuclear Techniques in Insect
  - Pest Management
  - Termite Control
  - Biological Control
  - Plant Pathology

#### E. Soil Science

- Isotopes in Soil Science and Plant Nutrition
- Crop Water Use Efficiency
- Integrated Nutrient Management
- Growing of off-season Vegetables in high Tunnel Farming

#### F. Modern Analytical Techniques

- Chromatography
- Spectroscopy
- Scanning Electron Microscopy
- G. Statistical & Computational Techniques
  - Statistical Designs
  - Economic Analysis
- H. Special Lectures
  - Nano Technology and its Application in Biology
  - Environmental Issues/Global Warming
  - Personality Development
  - Current status of food safety and Halal Foods

#### Laboratory Experiments/Demonstrations

- Use of Radiation Sources, Counters and Dosimetry
- Use of Neutron Moisture Meter
- Radio-Sensitivity of Plant/Insects
- Chromatographic Techniques
- UV / Vis., NIRS
- Quality Indices of Oils and Fats
- DNA Extraction, Quantification and PCR
  - Atomic Absorption Spectroscopy

For Further Information Visit NIFA Website http://www.nifa.org.pk