



BABA FARID
GROUP OF INSTITUTIONS
Bathinda, Punjab (India)



Academia Industrial Meet

Holistic Health with Herbal, Ayurvedic, and Natural Solutions

October 11, 2024

Venue: Main Seminar Hall, BFGI, Bathinda



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organized by

Baba Farid College, Bathinda, INDIA

in association with

Patanjali Research Foundation, Haridwar, INDIA

University of Patanjali, Haridwar, INDIA

**Baba Farid College of Management & Technology,
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ABOUT MEET

The Academia-Industrial Meet on Holistic Health with Herbal, Ayurvedic, and Natural Solutions aims to bridge the gap between academic research and industrial applications in the field of traditional and alternative health practices. This event provides a collaborative platform for scholars, practitioners, industry leaders, and innovators to share insights, discuss advancements, and explore opportunities for growth in the holistic health sector. The meet will focus on the integration of herbal remedies, Ayurvedic principles, and natural solutions for promoting overall well-being and addressing modern health challenges.

COLLABORATION OPPORTUNITIES

The meet emphasizes the importance of collaborative efforts between academia and industry to push the boundaries of traditional health solutions. Key areas for collaboration include:

Joint Research Initiatives: Academic institutions and industry partners can co-develop research projects focusing on the therapeutic benefits of herbal, Ayurvedic, and natural remedies. These collaborations will help validate traditional knowledge through modern scientific methods, resulting in evidence-based products.

Product Development: Industry players can leverage academic expertise in formulating new products derived from natural and Ayurvedic ingredients. Academia brings deep research insights, while industry partners contribute their market understanding and production capabilities, creating a synergy that can lead to innovative health solutions.

Knowledge Exchange Programs: The meet encourages mutual knowledge-sharing programs where academic researchers can gain insights into real-world industrial challenges, while industry professionals can stay informed about the latest scientific advancements in holistic health.

Internships and Training: By fostering opportunities for student internships and industry-led training programs, the meet aims to prepare a future workforce adept in both scientific research and practical applications in the herbal and Ayurvedic sectors.

CONSULTANCY SERVICES

The event will also highlight consultancy as a vital tool for bridging the expertise gap between academia and industry. This will involve:

Expert Guidance: Academic professionals can offer consultancy services to industries seeking specialized knowledge in areas such as formulation science, clinical trials, and regulatory compliance of herbal and Ayurvedic products. This expertise ensures that products are scientifically validated and meet market standards.

Regulatory and Quality Control Consulting: Academic experts can assist companies in navigating complex regulations related to the production and sale of herbal and Ayurvedic products, ensuring that they meet national and international safety and quality standards.

Market Research and Consumer Insights: Through consultancy, industries can tap into academic resources for in-depth market research, helping them understand consumer preferences and emerging trends in the holistic health space. This ensures that the products developed not only have therapeutic value but also resonate with consumer demands.

Sustainability Consulting: Consultants can guide industries on sustainable practices, from ethical sourcing of herbs to environmentally responsible production processes, aligning with global trends of sustainability in health and wellness sectors.

Major Instruments Details

(A) Lasany Non Portable Microprocessor UV-VIS Double Beam Spectrophotometer LI-2802 R

UV Double Beam Spectrometer is a state-of-the-art analytical instrument designed for precise and comprehensive UV-Vis spectroscopic analysis. Its double beam design ensures high accuracy and stability, making it ideal for a wide range of applications including pharmaceuticals, biotechnology, materials science, environmental monitoring, and more.

Functions in Industry of UV-VIS Double Beam Spectrophotometer:

1. Quality Control: Measures the concentration and purity of compounds in pharmaceuticals, ensuring product consistency and compliance with standards.
2. Environmental Monitoring: Analyses water and air samples for pollutants and contaminants, aiding in environmental protection and regulation.
3. Chemical Analysis: Determines the concentration of specific chemicals in solutions, essential for industrial processes and research.
4. Food and Beverage Testing: Assesses the quality, composition, and safety of food and beverage products by detecting additives, colorants, and contaminants.

Key Features:

- High Precision
- Versatility
- Advanced Software
- Robust Design

(B) Automatic Erba H360 Hematology Analyzer

The Automatic Erba H360 Hematology Analyzer is a cutting-edge diagnostic instrument designed for comprehensive blood analysis in clinical and research settings. It offers advanced features and functionalities to streamline hematology testing processes, delivering accurate and reliable results with efficiency and precision.

Functions in Industry of Hematology Analyzer

1. Clinical Diagnostics: Provides comprehensive blood analysis, including complete blood count (CBC) and differential counts, aiding in the diagnosis and monitoring of diseases like anemia, infections, and leukemia.
2. Laboratory Automation: Streamlines blood testing processes in clinical laboratories, enhancing efficiency, accuracy, and throughput.
3. Quality Control in Blood Banks: Ensures the quality and safety of blood and blood products by accurately counting and analyzing blood cells before transfusion.
4. Pharmaceutical Industry: Monitors the hematological parameters of subjects in clinical trials, helping to assess the safety and efficacy of new drugs.

Key Features:

- Fully Automated Operation
- Multi-Parameter Analysis
- Quality Control and Calibration

(C) REMI CI-10S BOD Cooling Incubators

The REMI CI-10S BOD Cooling Incubator is designed for laboratory applications, particularly in biotechnology, pharmaceuticals, and research institutions. It is primarily used for B.O.D. (Biochemical Oxygen Demand) tests, storage of sensitive cultures and vaccines, and incubation studies involving microorganisms and plant life.

Functions in Industry of BOD Cooling Incubators

1. Water Quality Testing: BOD incubators are used to determine the biological oxygen demand of water samples. This is crucial for assessing the level of organic pollution in water bodies.
2. Pharmaceutical Industry: Used in the development and testing of drugs, particularly for studying the growth of bacterial cultures under different conditions.
3. Food and Beverage Industry: Used to test microbial contamination in food and beverages.

Key Features:

- Temperature Control and Uniformity
- Energy Efficiency and Insulation
- Eco-Friendly Refrigeration System
- User-Friendly Interface and Data Management

(D) Simple Ball Mill –Jupiter Engineering works Delhi

A ball mill is a grinding device used to turn materials into fine powders or very fine particles. It operates on the principle of impact and attrition, where size reduction occurs as balls drop from near the top of a rotating hollow cylindrical shell. Ball mills are commonly used in various industries, including cement, silicate products, new building materials, refractory materials, fertilizers, ferrous and non-ferrous metals, and glass ceramics, among others.

Industries Using Ball Mills:

- Mining and Mineral Processing
- Chemical Manufacturing
- Cement and Building Materials
- Paint and Pigment Production
- Ceramics

Key Features:

- Batch and Continuous Operation
- Size Reduction to Micron Levels
- Customization and Scalability

(E) Hydraulic pellet press Jupiter engineering works Delhi

A hydraulic pellet press is a machine designed to compress powdered materials into solid pellets. These presses are widely used in various industries, including pharmaceuticals, materials science, agriculture, and renewable energy, to produce pellets for research, analysis, and industrial applications. The process involves applying high pressure to a powder contained within a die, which shapes the material into uniform, dense pellets.

Industries Using Hydraulic pellet press

- Biofuel Production: Creating biomass pellets for energy.
- Metallurgy: Forming metal powders into pellets for further processing.
- Pharmaceuticals: Compressing powders into tablets and pellets.
- Agriculture: Producing animal feed pellets.

Key Features:

- High Pressure Capability
- Versatility in Pellet Size and Shape
- Ease of Operation and Safety Features

Major Instruments Details

(F) High Temperature furnace Jupiter engineering works

High-temperature furnaces are used in various applications, including materials research, metallurgy, ceramics, and other industrial processes that require precise and consistent high-temperature conditions. The furnaces are built to provide excellent thermal performance, durability, and safety.

Typical Industries Using High Temperature Furnaces

Metallurgy and Metal Processing:

- Non-Ferrous Metals: These furnaces are used for melting and processing non-ferrous metals such as aluminum, copper, and nickel.

Ceramics and Glass Manufacturing:

- Glass Production: Melting raw materials to produce glass, including specialty glasses like borosilicate and optical glass, requires high temperature furnaces.

Chemical and Petrochemical Industries:

- Catalyst Activation: Many chemical processes require catalysts that are activated or regenerated at high temperatures.

Electronics and Semiconductors:

- Material Synthesis: Synthesis of materials like silicon carbide and gallium nitride, which are used in electronic devices.

Key Features:

- Advanced Temperature Control
- Robust and Durable Construction
- Energy Efficiency

(G) Labomed Stereo Zoom Microscope

Stereo zoom microscope are designed for detailed observation and analysis in various fields such as biology, materials science, electronics, and quality control. A stereo zoom microscope provides a three-dimensional view of the specimen, making it ideal for tasks requiring depth perception and detailed examination.

Industry Applications of Stereo Zoom Microscopes

Electronics and Semiconductor Industry:

- PCB Inspection: Stereo zoom microscopes are used to inspect printed circuit boards (PCBs) for defects, soldering quality, and component placement.

Medical and Biomedical Fields:

- Surgical Procedures: Used in microsurgery, particularly in ophthalmology and neurology, for detailed visualization of small structures.
- Pathology: Assisting in the examination of biological specimens, such as tissue samples and biopsies.
- Dental Applications: Providing detailed views of dental work, including examination and treatment planning.

Manufacturing and Quality Control:

- Product Inspection: Used to inspect small parts and components in various manufacturing processes to ensure quality and detect defects.

Jewelry and Gemology:

- Gemstone Analysis: Examining gemstones for inclusions, cut quality, and authenticity.
- Jewelry Inspection: Assisting jewelers in inspecting and repairing fine jewelry.

Key Features:

- High-Quality Optics
- Continuous Zoom Capability
- Versatile Illumination Options

(H) Fluorescence microscope labomed

Fluorescence microscopes are specialized tools used to study specimens that fluoresce, either naturally or when treated with specific dyes. These microscopes are essential in various scientific fields, including biology, medicine, and materials science, as they allow researchers to visualize and analyze structures and processes at a molecular level.

Industry Applications of Fluorescence Microscopes

Clinical Diagnostics:

- Medical Diagnostics: Essential for detecting pathogens, identifying cancer cells, and diagnosing genetic disorders through fluorescence in situ hybridization (FISH) and other techniques.
- Infectious Disease: Used in identifying and studying bacteria, viruses, and other pathogens in clinical samples.

Pharmaceutical Industry:

- Drug Discovery and Development: Enables the screening of drug candidates by visualizing their effects on cellular structures and functions.
- Toxicology: Used to assess the toxicity of compounds by observing cellular responses to drug exposure.

Agriculture and Plant Sciences

- Plant Physiology: Used to study plant cell structures, chlorophyll fluorescence, and other plant-specific fluorescent markers.
- Crop Research: Assists in studying the effects of genetic modifications, disease resistance, and plant growth under various conditions.

Key Features:

- Advanced Optical System
- Efficient Fluorescence Illumination
- Filter Cubes and Dichroic Mirrors
- High Sensitivity Detectors

(I) Simple Ball Mill –Jupiter Engineering works Delhi

A ball mill is a grinding device used to turn materials into fine powders or very fine particles. It operates on the principle of impact and attrition, where size reduction occurs as balls drop from near the top of a rotating hollow cylindrical shell. Ball mills are commonly used in various industries, including cement, silicate products, new building materials, refractory materials, fertilizers, ferrous and non-ferrous metals, and glass ceramics, among others

Industries Using Ball Mills:

- Mining and Mineral Processing
- Chemical Manufacturing
- Cement and Building Materials
- Paint and Pigment Production
- Ceramics

Key Features:

- Batch and Continuous Operation
- Size Reduction to Micron Levels
- Customization and Scalability

Major Instruments Details

(J) Industry Applications of Biochemical Analysers

Veterinary Medicine:

Animal Health Diagnostics: Performing routine blood chemistry panels to monitor the health and diagnose diseases in animals.

Food and Beverage Industry:

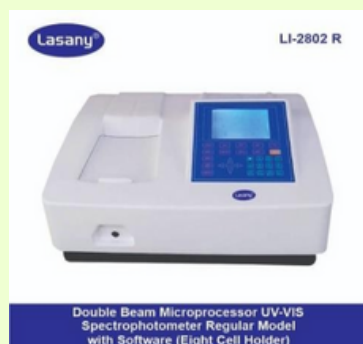
Quality Control: Ensuring the safety and quality of food and beverages by measuring biochemical parameters, such as nutrient content, additives, and contaminants.

Agriculture:

- **Crop Science:** Assessing the biochemical composition of crops to study the effects of fertilizers, pesticides, and environmental conditions.

Key Features:

- Automated Operation
- High Throughput
- Accurate and Reliable Results



(K) Microprocessor flame photometer

A microprocessor flame photometer is an analytical instrument used to determine the concentration of certain metal ions, specifically sodium (Na), potassium (K), lithium (Li), and calcium (Ca), in a sample. This device employs the principles of flame emission spectroscopy, where the intensity of light emitted by a sample in a flame is measured to determine the concentration of the metal ions present. The incorporation of a microprocessor enhances the instrument's functionality and accuracy.

Industry Applications of Microprocessor flame photometer

- Clinical Laboratories: Used for electrolyte analysis in blood serum and urine.
- Agriculture: Analysis of soil and plant extracts for nutrient content.
- Environmental Monitoring: Detection of metal ion contamination in water bodies.
- Food and Beverage Industry: Ensuring compliance with nutritional labeling and safety standards.

Key Features:

- Automatic Flame Control
- Calibration and Standards
- Detection and Sensitivity

About BFGI ADMIRE

The **Advance Department of Multidisciplinary Innovation Research & Entrepreneurship (ADMIRE)** at Baba Farid Group of Institutions (BFGI) brings together experts from various disciplines to foster innovation, creativity, and entrepreneurial ventures. As a cutting-edge research department, ADMIRE serves as a hub for groundbreaking ideas, focusing on the development of practical solutions that address real-world challenges.

The department is dedicated to creating an environment where knowledge transcends traditional boundaries, empowering researchers, scholars, and students to collaborate on multidisciplinary projects that drive progress in science, technology, and innovation. ADMIRE's commitment to excellence in research not only promotes academic growth but also enhances the institution's ability to contribute meaningfully to industries and society at large.

MISSION STATEMENT

ADMIRE is a dedicated multidisciplinary research team committed to pioneering innovative solutions and advancing scientific knowledge across diverse fields. Our mission is to bridge the gap between academic research and practical implementation, encouraging entrepreneurship and transforming ideas into impactful ventures. Through collaboration, innovation, and knowledge-sharing, ADMIRE aims to cultivate a dynamic research ecosystem that empowers the next generation of leaders, scientists, and entrepreneurs

With a focus on cutting-edge technologies, emerging fields, and the development of sustainable solutions, ADMIRE strives to remain at the forefront of scientific and technological advancement, shaping the future of research and entrepreneurship at BFGI and beyond.

ADMIRE TEAM

Chairperson

Prof. Sonia Malik: Dean of R&D, Baba Farid Group of Institutions, Bathinda, India

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ABOUT BFGI

Baba Farid Group of Institutions (BFGI), incepted in the year 1994 runs under the aegis of Baba Farid Vidyak Society, is one of the prominent education hubs in India. Founded, led and managed by a reputed educationist of northern region, Dr. Gurmeet Singh Dhaliwal (Gyan Jyoti Awardee), this institution is delivering the academic excellence with complete panache. Being the Leading Educational Institute of the Region, it is a preferred destination of Indian and international learners to attain their career goals. At BFGI, we guide, consult, lead and prepare the students for ultimate success by inculcating knowledge, perfection, passion, and professionalism. We combine the academic foundations with the employee ready skills. Here you will receive the best of both worlds: a deep, well-rounded education and the applied real-world skills necessary to achieve academic and career success.

With the constant barrage of new advancements in the Technological sector, as an Educational Institution we have Redefined ourselves by providing the practical platforms to our students with an aim to promote Research & Development, Employability, Skill Development and Entrepreneurship. It is an honour for us to be associated with some of the greatest multinational companies – which includes Microsoft, Oracle, SAP, HP, HCL, Nokia and many more. We are the only institute in the region to be associated with almost all the major industrial bodies of our nation like FICCI, CII, NSDC, ASSOCHAM, PHD Chamber of commerce, AIMA, NASSCOM etc. Since the inception of BFGI, we have been constantly striving hard to get Excellence and laurels in Academics, Sports & Extracurricular Activities. Till now every passing year has added a feather in our cap in the shape of bagging Merit Positions secured at State / University level by our students. Apart from Academics, our students have been successful in winning the Overall University Championship Trophies in highly competitive Youth Festivals and Sports Events organized at State/University levels.

