



**Two Weeks Training Programme on
Advanced Research Equipments
A UGC-STRIDE (Component-I) Programme
Innovation Centre, Bundelkhand University, Jhansi**

UGC-STRIDE(I):

Scheme for Trans-disciplinary Research for India's Developing Economy (STRIDE) aims to promote an innovative culture for trans-disciplinary research in Universities and Colleges. The main objectives of STRIDE are to identify young talent, strengthen research culture, build capacity, promote innovation, and support trans-disciplinary research relevant to national development. Component-I is intended to identify motivated young talents with research and innovation aptitude. It facilitates the research capacity building in diverse disciplines by mentoring, nurturing, and supporting young talents to innovate pragmatic solutions for local, regional, national, and global problems.

Innovation Centre

Innovation Center, established in 2014 is intending to support quality research and inculcate research thirst among the budding researchers of Basic and Applied Sciences. In 06 years of its very short life span, the Centre has developed a distinct image in providing the research support to the researchers of different Universities and research bodies in their doctoral research and carrying out research projects funded by various govt. funding agencies like DST, DBT, UGC, etc. The Centre is equipped with advanced research facilities as GC-MS, X-RD, Digital Imaging System, Ultra Centrifuge, 2D Gel Electrophoresis Unit, Inverted Microscope, Particle Quantity Analysis System, etc. which makes this Centre a major research hub and an unmatched facility in the state Universities.

Module-2 Training:

The Module-2 Training on Advanced Agro-Pharma-Bio-Technology Research Equipments for the Interdisciplinary Research is two weeks training program offered by the Innovation Centre, Bundelkhand University, Jhansi. The Graduate and/or Post Graduate students of a scientific discipline including Basic sciences, Applied Sciences, Forensic Sciences, Agricultural Sciences etc. may apply for this program to take training with STRIDE participants. The participants will gain training in a research-friendly unique academic ambiance for innovative scientific research in Biotechnology, Biomedical, Agricultural, Pharmacological, Physical, Chemical, Geological, and Forensic Sciences. It will train the participants for operating the high-end research equipments like X-Ray Diffractometer (X-RD), Gas Chromatography-Mass Spectrophotometer (GC-MS), Real Time-PCR, 2D Gel Electrophoresis, Ultra-sonicator, PQMS, STM, etc. In addition to the application knowledge of the machine, the training will lay greater emphasis on the fundamental analytical & wet-lab tools and techniques relevant to Basic and Applied Sciences.

Training Schedule:

(Everyday, the training will be started with a power point presentation on Principle, Mechanism of Action and Application of the equipment(s) by the Application Specialist in pre-lunch session then hands-on training on the same equipment will be given in post-lunch session).

S. No	Date & Day	Time- 11am-1pm	Time- 2pm-5pm Hands on Training on
1.	16 th April 2021; Friday	Feedback of Module-1 and inauguration of the Module-2 Lecture on Innovation Centre facilities.	<ul style="list-style-type: none"> Laboratory visit Demonstration of the Basic Facility of the Centre viz. Ice Flakes Machines, Milli Q Water System, Micro Balancing, BOD Incubator, Deep Freezer, Fume Hood, etc.
2.	17 th April 2021; Saturday	Lecture on Biomedical Signals; methods of generation and their importance in diagnosis and therapeutics	Hands-on-Training on <ul style="list-style-type: none"> Biomedical Data Acquisition System (BDAS) for ECG, EEG, EMG, BP, Pulse Pressure, Pulmonary Capacities, Grip Force, etc.
3.	19 th April 2021; Monday	Lecture on Methods of phytochemical extraction, uses of vacuum rotary evaporation, sample preparation for chromatographic analysis	Hands-on-Training on <ul style="list-style-type: none"> Soxhlet extraction through Soxhlet apparatus Phytochemical Screening Tests Vacuum Rotaevaporation
4.	20 th April 2021; Tuesday	Lecture on Culture techniques with special reference to Drosophila Culture	Hands-on -Training on <ul style="list-style-type: none"> Media Preparation, Drosophila/cell culturing, Laminar hood, Inverted Microscope etc.
5.	21 st April 2021; Wednesday	Lecture on Principle, Mechanism of Action, and applications of <ul style="list-style-type: none"> Lyophilizer Ultrasonicator 	Hands-on -Training on <ul style="list-style-type: none"> Lyophilizer Ultrasonicator
6.	22 nd April 2021; Thursday	Lecture on Principle, Mechanism of Action, and applications of <ul style="list-style-type: none"> Microwave Digester Flame Photometer Fume Hood 	Hands-on -Training on <ul style="list-style-type: none"> Microwave Digester Flame Photometer Fume Hood
7.	23 rd April 2021, Friday	Lecture on Principle, Mechanism of Action, and applications of <ul style="list-style-type: none"> Real Time-PCR 	Hands-on -Training on <ul style="list-style-type: none"> Real Time-PCR
8.	24 th April 2021, Saturday	Lecture on Principle, Mechanism of Action, and applications of <ul style="list-style-type: none"> Gel Electrophoresis & Digital Imaging System 	Hands-on -Training on <ul style="list-style-type: none"> Gel Electrophoresis & Digital Imaging System
9.	26 th April 2021, Monday	Lecture on Principle, Mechanism of Action, and applications of <ul style="list-style-type: none"> High Performance Liquid Chromatography (HPLC) 	Hands-on -Training on <ul style="list-style-type: none"> High Performance Liquid Chromatography (HPLC)
10.	27 th April 2021,	Lecture on Principle, Mechanism of Action, and applications of	Powerpoint presentation on <ul style="list-style-type: none"> Steps of operation of Gas

	Tuesday	<ul style="list-style-type: none"> Gas Chromatography-Mass Spectrometer (GC-MS) 	Chromatography and <ul style="list-style-type: none"> Report preparation by Mass Spectrometer
11.	28 th April 2021, Wednesday	Hands-on -Training on <ul style="list-style-type: none"> Gas Chromatography-Mass Spectrometer (GC-MS) 	Hands-on -Training on <ul style="list-style-type: none"> Gas Chromatography-Mass Spectrometer (GC-MS)
12.	29 th April 2021, Thursday	Lecture on Principle, Mechanism of Action, and applications of <ul style="list-style-type: none"> Multimode Plate Reader Atomic Absorption Spectrometer Total Organic Carbon (TOC) 	Hands-on -Training on <ul style="list-style-type: none"> Multimode Plate Reader *Atomic Absorption Spectrometer Total Organic Carbon (TOC)
13.	30 th April 2021, Friday	Lecture on Principle, Mechanism of Action, and applications of <ul style="list-style-type: none"> X-Ray Diffractometer 	Hands-on -Training on <ul style="list-style-type: none"> X-Ray Diffractometer
14.	1 st May 2021, Saturday	Lecture on Principle, Mechanism of Action, and applications of <ul style="list-style-type: none"> Physical Quantity Measurement System (PQMS) & Scanning Tunneling Microscope (STM) 	Hands-on -Training on <ul style="list-style-type: none"> Physical Quantity Measurement System (PQMS) and Scanning Tunneling Microscope (STM)
Valedictory session including participants feedback			

*Taining is subjected to arrival and installation of the equipment at Innovation Centre.

Note- University reserves the right of increasing or decreasing the number of seats and rearranging the order of training on equipments.

- **Who can Apply?** University & College faculty members, PhD Scholars/ UG/PG students of Basic and Applied Sciences (Biomedical, Biotechnology, Microbiology, Biochemistry, Life Sciences)/Pharmaceutical Sciences/Agricultural Sciences/Forensic Sciences/Geo Sciences/Medical Sciences/Paramedical Sciences and Engineering (Biotech, Biomedical, Food Tech).
- **Intake:** First 20 registrants (other than STRIDE- Batch II participants). Registration shall be confirmed after the successful submission of registration fee at University cash counter. University reserves the right of increasing/ decreasing the number of seats subjected to the conditions of requiring so.
- **How to Register?** Interested candidates may successfully register by completing the following steps.
 - ✓ Fill the application cum voucher form given on next page.
 - ✓ Get the form endorsed by the Innovation Centre authorities and
 - ✓ Submit the Programme registration fee i.e. **Rs. 2500/= (Rs. Two Thousand Five Hundred Only)** through direct cash deposit at University cash counter till **April 13, 2021**.
 - ✓ **Submit the lower half leaf of the application cum voucher form alongwith dept. copy of the fee receipt at the Innovation Centre. You may email also at stride.bu@gmail.com**

Note- 20 succesful registrants will be accepted on first come first serve basis.

Contact for queries, if any- 7080324800; 9452888176; 9076501610



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Registration Form cum Voucher

- Name:.....Designation.....
- Department/Institute:.....
- Contact detail of User: Mob.....e-Mail:.....

Payment detail		
B U Cash Counter Receipt no.	Date	Total Paid Amount @Rs. 2500/- per participant

4. I hereby declare that I will sincerely attend the whole program. In case any damage caused by me during the program, the charges fixed by the organizers shall be paid by me. I will acknowledge the program & Innovation Centre in all publications of the generated data.

Date:

Name & Signature of the Candidate

For the Use of Innovation Centre Only.....

Mr./Ms.....from.....is shortlisted for the 'Two weeks training programme on advanced research equipments, April 16-May 01, 2021. Pls. deposit Rs. 2500/- (Two Thousand Five Hundred Only)/Head towards infrastructure support to be provided by the Innovation Centre during the programme.

Co-Coordinator/Coordinator
Innovation Centre

Cut from here and deposit this part along with payment slip at the Innovation Centre.....

Registration Form cum Voucher

- Name:.....Designation.....
- Department/Institute:.....
- Contact detail of User: Mob.....e-Mail:.....

Payment detail, if any		
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