ANNUAL PROGRESS REPORT (2022-23)

NAHEP-INSTITUTIONAL DEVELOPMENT PLAN

STRENGTHENING INSTITUTIONAL CAPACITY TO PRODUCE SKILLED PROFESSIONAL FOR MARKET DRIVEN AGRICULTURE

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1. Executive Summary

NAHEP Project Objective:

NAHEP is designed to strengthen the national agricultural education system in India with overall objective to provide more relevant and high quality education to agricultural university students. This programme will promote efficiency and competiveness through changes in working mechanism of agricultural universities, raising the teaching and research standards through improved research and teaching infrastructure and enhanced faculty competency and commitments, and making agricultural education more attractive to talented students. There are four key components under NAHEP, namely; Institutional Development Plan (IDP), Centres for Advanced Agricultural Sciences and Technology (CAAST), ICAR to support excellence in agricultural universities (AUs), and ICAR Innovation Grants to AUs. It is envisaged that improved AU performance through quality enhancement, better employment and entrepreneurship opportunities created for agriculture graduates, non-accredited AUs attaining ICAR accreditation, and institutional reforms implemented in education division of ICAR and AUs under these components together shall contribute to the achievement of the overall program objective.

Under NAHEP, CCS Haryana Agricultural University (HAU), Hisar is implementing the Institutional Development Plan (IDP). The project is improving efficiency of Agricultural education through enhanced faculty competence, innovative partnerships with industry and international universities and strengthening/ renovation/modernization of existing physical facilities. It has been intended to initiate innovative courses and training programs in partnership with industry and universities abroad to enhance employability and nurturing entrepreneurial skills to produce the next generation of graduates and leaders for climate resilient market driven sustainable agriculture in a global context. Specific activities undertaken include institutional capacity building and global knowledge partnerships through faculty development, curriculum enhancement, student and faculty exchanges, internships and experiential learning with industry, skill development activities, alumni networks, agribusiness incubation centre, and university industry conclave.

2. Progress made during period

The progress made across each components of NAHEP during April'22 to March '23 is provided.

i. Component 1a: Support to Institutional Development Plan (IDP) of AUs

The IDP financed activities are more oriented towards capacity building and governance reforms leading to the greater autonomy and sustained accreditation of the University. The key provisions for funding under IDP include teaching and research infrastructure development, faculty development and training, networking and industry collaboration, vocational training, students job placement, own revenue generation and support to twinning plan. In addition to these priorities, emphasis is also being placed on effective industry linkages to enhance employability of agriculture graduate as well as to help AUs to generate their own resources. Renewed public-private partnership efforts will

strengthen stakeholder role in curriculum design and faculty and student development. This will help the agricultural higher education system in India to produce quality graduates with desired traits, exposure and experience, and skills in innovation, entrepreneurship, and agribusiness to solve current and emerging problems of agriculture.

a. Procurement:

- Equipment purchased "Supply, Installation, commissioning, technical support and demonstration of robotics and automation lab equipment in COAE&T

S.No.	Item Name	Description	Qty.
I.	**Arduino kits (Microcontroller boards and circuit accessories)**		
1	Uno with USB Cable	ATmega328P, 8 bit AVR family microcontroller, equivalent or better	75
2	Nano with USB Cable	ATmega328P, 8 bit AVR family microcontroller, equivalent or better	75
3	Mega with USB Cable	ATmega 2560P, 8 bit AVR family microcontroller, equivalent or better	30
4	Basic Shield	It should be interfaced with 5V or 3.3 V logic microcontroller boards like Arduino, AVR, PIC, 8051, ARM etc. It should contain at least 8 LEDs 2 Push Button Potentiometer (102k) LDR (light dependent resistor)	30
5	Proto Shield	Self-adhesive proto shield	30
6	LCD Display 16*2	Dot matrix LCD Display with 16 characters * 2 lines	30
7	LCD Display 16*4	16*4 LCD Display	30
8	I2C Module	I2C Adapter Serial Interface Board Module 5 V compatible for all development boards Compatible for 1602 LCD 2004 LCD Supply voltage: 5V The backlight and contrast should be adjustable by potentiometer The module should have a contrast adjustment pot.	30
9	LED Matrix	Max 7219 dot LED matrix module MCU control LED display module	20
10	Bluetooth HC05	Working voltage 5V	30
11	Bluetooth HC06	Working voltage 5V	30
12	7 Segment Display	It should be quality built product with 4-SSD display inbuilt. It should be compatible with any 3.3 V and 5 V Control System Should be able to integrate with Microcontrollers such as Arduino Uno, Nano etc.	30
13	GSM Module	Bands: GSM 850MHz, EGSM 900MHz, DCS 1800MHz, PCS 1900MHz Coding schemes: CS-1, CS-2, CS-3, CS-4 Tx power: Class 4 (2W), Class 1 (1W) GPRS class 2/10. Voltage Supply Required- 9VDC to 12VDC with atleast 2A Peak Current Capability	20

		5V interface for direct communication with MCU kit. TTL Rx and TTL Tx and DB9 Connector Based RS232 Outputs Baud rate Should be configurable. Built-in SIM Card holder. Built-in Network Status LED. Inbuilt Powerful TCP/IP protocol stack for internet data transfer over GPRS. Should have external Finger type antenna	
14	GPS Module	Tracking sensitivity: 161 dBm Capture sensitivity : 148 dBm	15
15	LDR Board	Photo sensitive LDR light sensor module	30
16	Keypad Matrix	Universal 16 Key Switch Keypad	30
17	Node MCU Module ESP 8266	ESP 8266, I2C, Wire, plug and play	20
18	Node MCU Module ESP 32	SPI Flash: 32 mbit Current: 80mA Supply Voltage: 2.2 to 3.6 V Should supports three modes: AP, STA, and AP+STA Should support LWIP protocol	20
19	MPR 121 Board	Capacitive Touch Module MPR121 with 12C	50
20	RF Reader with Card	Current :13-26 mA/DC, 3.3V ideal current 10-13 mA/ DC 3.3 V Sleep Current < 80uA Peak Current < 30mA Operating Frequency:13.56Mhz Read Range between 20 cm to 1 m	50
21	RX TX Module	Frequency Range: 433.92/315 MHz Supply Voltage: 3-6 V Output Power: 4-16 DBm Should consume Low power and easy application.	50
22	L 298 Module	L298P motor driver or relative driver shield	50
23	L 293D Module	Motor driver Module with 5V and GND pins on-board	50
24	DTMF Board	DTMF Voice Tone Decoder Module Telephone Audio Speech Decoding Module	50
25	Bread Board Power Supply	Bread Board Power Supply	100
26	Joy Stick Module	Joy Stick Module	50
27	Buck and Boost Converter Modules	Buck and Boost Converter Modules	20
28	RTC Module	Output pin 1 Hz SQW Output pin 32 KHz 32K Voltage Supply: 2.2 V - 5.5 V (for RTC) Time Format: HH: MM: SS (12/24 hr) Date Format: YY-MM-DD DS 3231 based RTC with 2032 Battery Holder.	20
29	Relay 1 Channel Module	Relay 1 Channel Module	50
30	Relay 2 Channel Module	Relay 2 Channel Module	50
31	Relay 4 Channel	Relay 4 Channel Module	50

	Module		
32	MM Wire 40 pc	M-M Wire 40 pc	20
33	Relay 5V	Relay-5V	100
34	Connecting Wire MM	Connecting Wire MM	500
35	Connecting Wire MF	Connecting Wire MF	500
36	Connecting Wire FF	Connecting Wire FF	500
37	Male Berg Strip	Male Berg Strip 40 pin	500
38	Female Berg Strip	Female Berg Strip 40 pin	500
39	Bread Board 400 Pin	Bread Board 400 Pin	100
40	Bread Board 800 Pin	Bread Board 800 Pin	100
41	General Purpose Board 6"x 4"	FR2 A Grade Material 6" x 4"	250
42	General Purpose Board 3"x 2"	FR2 A Grade Material 3" x 2"	250
43	RGB LED	RGB LED	250
44	Relay 12V	Relay - 12V	100
45	MF Wire 40 pc	M-F Wire 40 pc	30
46	FF Wire 40 pc	F-F Wire 40 pc	30
47	Battery Clips	Battery Clips	500
48	DC Pin	DC Pin	500
49	Capacitive Touch Switch	Capacitive Touch Switch Module TTP223	50
II.	**Programmable robotic kits and software access**		
1	Programming DIY Kit	The programming kit should be compatible with motors, chassis, and sensors. Students could be able to make Line following Robots, Obstacle Avoiding Robots, Mobile Controlled Robots. 16 x 2 LCD for displaying values.	30
2	4 Wheel Robotic DIY Kit	4 Wheel Robotic Kit should have acrylic chassis and motors with necessary mechanical components.	25
3	Electronics and programming kit	The kit should be compatible and can be connected via connectors mounted on PCB board with each other. Board should be modular and should have an option of attaching each board on Lego-type plates. All the boards shall be in the format of input, output, connector, and power & brain. It should have microcontroller which can be interfaced with the computer and can be coded to perform tasks.	20
4	Drone Kit	4 BLDC Motor 1800KVA, 4 ESCs, 4 Propellers, 1 Frame, 2200 mAh Battery or better, Remote & Accessories All components should be compatible for assembling.	4
5	Aircraft Kit	RC Aircraft Plane with Remote Control All components should be compatible for assembling and making the Aircraft Kit.	4
6	Quick-Bit Kit	The kit should be programmable by block-based, scratch & C & C++ languages. Students should be able to make multiple projects by using	5

		this kit.	
7	4 DOF desktop robotic arm	Number of Axis - 4 Payload – at least 450 g Max. Reach – at least 3000 mm Position Repeatability (Control) - 0.2 mm Communication - USB / WIFI / Bluetooth Power Supply - 100 - 240 V Power in - 12 V DC Working Temperature: -10°C to 60°C Material: Aluminium Alloy, ABS Engineering Plastic or better Controller: Integrated Controller Axis movement: Joint 1 (-90° to + 90°), Joint 2 (0° to +80°), Joint 3 (0° to +95°), Joint 4 (90° to +90°) Software Develop Kit, Communication Protocol, Program Library Extensible I/O Interfaces End effectors: 3D Printer Kit: Maximum Print Size - 150 mm ×150 mm × 150 mm, 3D printing material: PLA, Resolution: 0.1 mm Laser Engraving kit: Laser module, laser protective glasses Pen Holder kit and pen for writing and drawing Vacuum Suction Cup Gripper: Pneumatic type, Range at least 25 mm It should also include WIFI Module, Bluetooth Module (with cables), and Joystick Control Kit	2
8	Conveyor Kit	It should have adjustable speed, distance and colour sensor Payload: at least 500 g Effective delivering distance: 600 mm Net Weight: Max. 5.0 kg Dimension: at least 700 mm × 200 mm × 50 mm Distance measuring sensor unit, Colour recognizing sensor unit	2
9	Linear Rail Kit	Payload: at least 5 kg Effective Travel Distance: 1000 mm Net Weight: Max. 5.0 kg Repeat positioning accuracy: 0.01 mm Absolute positioning accuracy: 0.25 mm	2
10	Robotic Vision Kit	It should include both basic software and hardware platform based on visual development. Suitable for visual applications including visual positioning, measurement, detection, and recognition. Industrial Camera, USB cable, dongle, Industrial camera lens, Camera mounting kit, Camera light kit (adapter, source, connector), tool package (Allen wrenches), camera plate, extension pole Camera: Effective Pixel: 5 Million Hue: Color Pixel Size: 2.2×2.2 um Shutter Type: Curtain Exposure Exposure control: Auto/Manual	2

		Data Interface: USB 3.0 Lens Mount: C-Mount Auxiliary light source: Luminous color - White	
11	Agriculture Kit	Agriculture Kit Should include Soil Testing kit, Soil Testing PH Meter, Moisture Sensor with Garden Farming Gloves, TDS and PH meter, Water Level Sensor, Soil NPK Sensor, Grain Moisture Meter, Temperature and Humidity Sensor, Industrial Humidity Sensor having High Accuracy IP65 for Flower Planting for Agriculture, Necessary tool kit.	6
12	Circuits Kit	It should provide multiple projects related to circuits development in one kit for hands on experience to the students.	15
13	Bio Medical Kit	It should include ECG Strips, Blood, Glucometer, Food Thermometer etc.	15
14	Mechanical Construction Kit	Remote Control x1 (Remote should have DPDT Switches with option for Switches and Switch modes) , Data Cable , 4 Channel Power Distribution Board, 60 Teeth Spur Gear, 35 Teeth Spur Gear, 12 Teeth Spur Gear Wheels with an option for attaching Track Belts, Track Belts with Bolts, Pulley, Big Rack Gear, Small Rack Gear, BO L Shaped 150 RPM Motor, Spanner, Screw Driver, Holder, Nuts and Bolts, Shaft Locker, Different size Plates, Bars, Shafts, Arc Clips, Sliders, Plastic Motor Shafts, Spacers, Axle Locks, Hook, Caster Wheels, Caster Strips	40
15	Bio Tech Kit	Kit should include digital microscope, milk testing kit	10
16	Water Sanitation Kit	Kit should include TDS Meter, PH Meter, Water hardness testing kit, PH strips etc	10
17	AI Kit / artificial intelligence kit	Input power: 5V DC via DC jack (Max 3A). Processor: Broadcom BCM2711, quad-core Cortex- A72 (ARM v8) 64-bit SoC @ 1.5GHz. Connectivity: 2.4 GHz and 5.0 GHz IEEE 802.11 b/g/n/ac wireless LAN Memory: 32 GB Storage, USB Port: USB 3.0 ports, USB 2.0 ports. 1 Cooling Fan. 16 pin GPIO ports. 1 Audio Port. 2 × micro-HDMI ports, Keyboard and Mouse, Pi Camera.	6
18	Intelligent Brain Kit	It should include 8 I/O ports, 16*2 LCD for display, inbuilt Bluetooth for wireless communication and easy connectivity, Sensors and accessories like RJ 11 wires etc. - 4 Motor Ports RJ 11 Connectivity - 4 Sensor Ports RJ 11 Connectivity	15
19	Soldering Kit	Kit should include Solder Iron, Stand, Solder, Wick, Paste etc. It should contain more than 5 soldering iron tools (Soldering wire, Soldering Rod, Desolder Wick, Solder Stand, Flux) to meet all your soldering needs. Suitable for electronics, jewellery, soldering, wiring, mobile devices, computer hardware, etc. Upgraded heat-insulated anti-scald grip, vent holes on the steel pipe help to cool quickly.	15

20	IoT Kit	For Cloud Computing and Internet projects. Students could be able to use camera to detect objects and filter various images and use it in advanced Image Processing projects.	15
21	Any online Coding & Robotics Software (with Login Id & Password)	Should have Scratch based Coding Platform, Should include features such as Block based coding, uploading codes on Arduino and other microcontroller boards.	20
III.	**Different types of motors, sensors, grippers, actuators, modules etc.**		
1	Ultrasonic Sensor	HS-04 Ultrasonic Sensor	50
2	Accelerometer 3 Axis	Accelerometer 3 Axis	30
3	PIR Sensor Module	PIR Sensor Module	30
4	Pulse Heart Rate Sensor Module	Pulse Heart Rate Sensor Module	20
5	Soil Moisture Sensor	Soil Moisture Sensor	30
6	Raindrop Sensor Module	Raindrop Sensor Module	20
7	Temperature Sensor	Temperature Sensor	20
8	Force Pressure Sensor	Force Pressure Sensor	20
9	Colour Recognition Sensor	Colour Recognition Sensor	20
10	Water Flow Sensor	Water Flow Sensor	20
11	LiDAR Distance Sensor	Operating Range: up to 8 m Distance Resolution: 1 cm Power Consumption ≤ 0.35W Frame Rate: 1-250Hz(Default 100Hz) FOV: 2°	5
12	Waterproof Ultrasonic sensor	Resolution: 1 inch or better Reading Rate: 20 Hz or better Maximum Range: 600 cm or more Operating Voltage: 2.5-5.5V Current: 2.0 mA	5
13	Waterproof Ultrasonic sensor with separate probe	Should be integrated with wire enclosed waterproof probe, suitable for wet, harsh measurement occasions Operating Voltage: 5 V Sonar Sensing Range: 25 - 450 cm Max. Sensing Range: 450 cm Frequency: 40 kHz	5
14	Load Cell 500 kg	Load should be applied in both tension and compression. Alloy steel finish Precision: C2, Composition Error: ± 0.03 Rated Output (mV/V): 2.0 ± 0.05 Zero Balance (% FS): 2.0 Excitation Voltage (V): 9 to 12 (DC) Use Temp. Range (°C): -10 to +60 Safe Overload (% FS): 150 Defend Grade: IP67	5
15	Load Cell 1000 kg	Load should be applied in both tension and compression. Alloy steel finish	5

		Precision: C2, Composition Error: ± 0.03 Rated Output (mV/V): 2.0 ± 0.05 Zero Balance (% FS): 2.0 Excitation Voltage (V): 9 to 12 (DC) Use Temp. Range (°C): -10 to +60 Safe Overload (% FS): 150 Defend Grade: IP67	
16	IR Sensor Array	IR Sensor Array with 5 IR Sensors set	10
17	Vibrating Motor	Vibrating Motor	100
18	Solenoid Valve	Solenoid Valve	50
19	IR Pair	IR Pair	400
20	TSOP	TSOP	75
21	Gas sensors (MQ 2, MQ 3, MQ 4, MQ 5, MQ 6, MQ 7, MQ 8, and MQ 135) - Each 10 quantities	(MQ 2, MQ 3, MQ 4, MQ 5, MQ 6, MQ 7, MQ 8, and MQ 135)	10
22	IR Sensor	IR Sensor	100
23	Magnetometer 3 Axis	Magnetometer 3 Axis	20
24	Sound Sensor	Sound Sensor	20
25	Capacitive Multi Touch Switch	Capacitive Multi Touch Switch TTP224	20
26	DC Motor Gear Motor 100 RPM	Gearbox should be sealed and lubricated with lithium grease and requires no maintenance. Motor runs smoothly from 4V to 12V and gives the wide range of RPM, and torque. Operating Voltage: 12 V Rated Torque: atleast 2.5 kg-cm Stall Torque:atleast 11 kg-cm	20
27	DC Motor Gear Motor 200 RPM	Operating Voltage: 6-18 V Rated Voltage: 12 V Rated Torque: atleast 56 N-cm Stall Torque: atleast350 N-cm	20
28	DC Motor Gear Motor 300 RPM	Operating Voltage: 6-18 V Rated Voltage: 12 V Rated Torque: atleast30 N-cm Stall Torque: atleast 300 N-cm	20
29	DC Motor Gear Motor 500 RPM	Voltage (DC):12V Rated RPM (at 12V):500 Gear Reduction: 20K Rated Torque: atleast45 N-cm Full Load Current:atleast4 A	20
30	DC Motor Gear Motor 1000 RPM	Voltage (DC):12V Rated RPM (at 12V):1000 Gear Reduction: 10K Rated Torque: atleast30 N-cm Full Load Current:atleast6 A	20
31	Small Servo Motor Plastic Gear	Operating voltage: 3.0V - 7.2V Servo Plug: JR	50

		Stall torque @4.8V : 1.2kg-cm Stall torque @6.6V : 1.6kg-cm	
32	Servo Motor MG996	Stall torque: atleast9 kg/cm (4.8v); 11kg/cm (6.0v) Operating speed: 0.19sec/60degree (4.8v); 0.15sec/60degree (6.0v) Operating voltage: 4.8 - 6.6V Gear Type: Metal gear Dead band width: 1us	30
33	Servo Motor MG995	Operating voltage: 4.8V - 7.2V Stall torque @4.8V : 13kg-cm Stall torque @6.6V : 15kg-cm	30
34	Servo Motor MG90	Operating voltage: 4.8V- 6.6V Servo Plug: JR Stall torque @4.8V : 1.8kg-cm Stall torque @6.6V : 2.2kg-cm	50
35	Stepper Motor with Stepper Driver Module	Step Angle: 1.8 ° Current: 1.2 A/Phase Holding Torque: 4.2 kg-cm Detent torque: 2.2 N.cm (Maximum) Lead Wires: 4 Shaft diameter: 5 mm	25
36	BO Motor	150 RPM BO Motor	50
37	High Torque Motor	Operating Voltage: 12V DC Rated Torque: 45 N-cm Rated Speed: 262 RPM Rated Current: 1.92 A Rated Power: 22.93W Gear Ratio: 19.2:1	30
38	BLDC Motor 1000KV	BLDC Motor 1000KV	10
39	BLDC Motor 1800KV	BLDC Motor 1800KV	10
40	DHT 11 Module	Humidity measuring range: 20%-90%RH(0-50 degree (temperature compensation). Temperature measuring range: 0 to +50degree. Humidity measurement accuracy: ±5.0%RH. Temperature measurement accuracy: ±2.0degree.	25
41	DHT 22 Module	Measuring range: temperature -40 to 80 ℃; humidity 0-99.9%RH Resolution: temperature: 0.1 ℃, humidity: 0.1%RH	25
42	Chlorophyll Content Meter	Type: Handheld Measurement Sample: Crop Leaves Measurement Principle: Optical density difference at two wavelengths. Measurement Area: more than 2 mm x 2 mm Accuracy: within ±1.0 SPAD units Reproducibility: within ±0.5 SPAD units Insertion Depth: up to 12 mm; depth stop adjustable Light Source: LEDs (Light emitting diodes) Receptor: Silicon Photodiode Display: LCD panel showing 4-digit measurement value It should be able to calculate the average of all data in	1

		memory. Data recall key Power Source: AA Size batteries Operating temperature: 0 - 50°C Humidity: ≤ 80% Accessories: Depth stop, strap, soft case, batteries, reading checker	
IV.	**Tools, Machines, Hardware, and Safety Kit**		
1	Hacksaw	Hacksaw 12 inches Blade Material: HSS Cutting Angle: 90 Degrees	10
2	Hacksaw Blades	Hacksaw Blades 12 inches	10
3	Mini Hacksaw	Mini Hacksaw 6 inches	10
4	Mini Hacksaw Blades	Mini Hacksaw Blades 6 inches	10
5	Plier External Straight	Material: Vanadium Steel,Steel Handle Material: Alloy Steel	10
6	Plier Nose Circlip	Plier Nose Circlip	10
7	Plier Long Nose	Handle Type: Matted Jaw Type: Serrated Length: atleast160mm Material: Drop forged heat treated polished steel Plier Style: Long Nose	10
8	Plier Combination Mini	Plier Combination Mini	10
9	Plier Wire Stripper	Multi-purpose tool for stripping and cutting solid copper wire or aluminium cables. Serrated nose. Should be able to use for crimping insulated and non-insulated terminals. Should made of high-carbon alloy steel.	10
10	Plier Bent Nose	Tips should be bent and provided with serrations to prevent the circlip from flying away during use. Heat treatedand Drop forged from suitable high grade steel.	10
11	Plier Needle Nose	Plier Needle Nose	10
12	Steel Shaft Hammer	Steel Shaft Hammer	10
13	C Clamp	C-Clamp 3" size	10
14	Allen Key Set	10 piece ring imperial Allen Hex Key	10
15	Wire Stripper	Wire Stripper	10
16	Multi-Purpose Screw Driver	Should have Magnetic bit holder for secure storage of bits. Should have internal bit storage for easy access and fast changeover of bits. Should have Three-position switch to enable clockwise and counter-clockwise ratcheting and locked position.	10
17	Cutting Mat	Self-Healing,Multiple Layered, Double Sided, Non-Slip, PVC Cutting Mat Mat Size: 17" x 11"	10
18	Peg Board	Peg board system to mount tools on walls	10
19	Glue Gun	Voltage: 110-220V Power consumption: 20W	10

		Melt Temperature(°C): 190 (± 10) Glue Stick Size: 7 mm The Trigger-freed mechanism to control glue flow. Should have Thermostat, Speed Melt (Internal PTC Heating Element).	
20	Solder Station	Station: Voltage - 220-240V AC. Power Consumption: 60W-300W. Frequency: 50 Hz. Double LED display. Soldering Iron: Voltage - 24V AC. Power: 60W (Heat up rating 130W). Temperature: 50 - 480°C. Heating Element: Ceramic heater. 4 pins, no sleep function.	5
21	Adapter 12V 1A	Input Voltage: 100-270VAC, 50/60Hz Output: 12V 1A	30
22	Adapter 12V 2A	Input Voltage (V): 100-280VAC, 50/60Hz. Output Power: 12V 2A.	30
23	Electric Screw Driver	Multipurpose Electric screwdriver set. Accessories: Compatible Bits Mode: Wireless Battery - Li-ion 3.6 V	5
24	Hot Air Gun	1800 Watt dual temp heat gun	5
25	Drill Machine along with drill bit set	Wattage: 500 watts; No-load speed: 0–2600 rpm; Voltage: 220-230V; Frequency: 50-60 Hz Should have Rotating brush plate for constant power in reverse and forward rotation. Drill-bit set specifications: No. of pieces: 50 Material: Alloy Steel Cutting Diameter: 10 mm Finish Type: Titanium Nitride, Titanium Shank Type: Hex	1
26	Soldering Helping Hand	Soldering Helping Hands Magnifier Station with Clamp and Clips with LED lights	10
27	Measuring Tape	5 m x 19 mm	10
28	Metal Scale	12 inch /150 mm rule	10
29	Digital Vernier Calliper	Measurement Range: 0-300 mm Resolution: 0.01 mm Material: Stainless steel Least Count: 0.02 mm Battery Life: At least 200 Working Hrs Should include: Product Catalogue with Product Box	3
30	Multimeter	Voltage Current resistance - 7 functions + 19 ranges to cover DC voltage 200 mV to 1 kv AC voltage 200 V-750 V	10
31	Power Strip Adaptor	Power Strip Adaptor	10
32	Spanner Set	12 pieces combination spanner set range 4mm-30mm	10
33	Vice Normal	Table top vice fitted to the table	10
34	Drill Bit Set	Goog quality 13 pieces HSS drill bits set for wood, iron, aluminium, plastic etc	10
35	File Set	6 inches and 6 piece	10

36	Cable Tie	Cable Tie	10
37	Sand Paper	Sand Paper	10
38	Workstation for Drilling	Workstation for Drilling	1
39	Cordless Drill	Power Source: Battery Powered (18 Volts), Should include Components such as Tool, Battery etc. Size: 30 cm x 15 cm x 20 cm or bigger, Material: Plastic, Speed 600 RPM, Maximum Power 18 Watts, 18 V Lithium Ion battery powered 10 mm chuck Drill Driver, 1.5 Ah battery capacity with maximum Torque of at least 35 N-m Drilling capacity with Reverse Action: 10 mm (Steel), 25 mm (Wood), Position Clutch should prevent damaging materials and stepping screws, 0-600 RPM power and speed Drill with integrated LED light	1
40	Plastic Tool Box with Organizer	For organising small electronics components: Sliding Transparent Racks, Strong Sheet Metal Frame, should have Quality build Finish	3
41	Gluestick	Gluestick	500
42	Plastic Tube	4 mm	100
43	Section Pipes	4 mm	100
44	Variable Supply Voltage (DC)	Digital Display: 4 LED Digital Display Output Voltage: 0 – 30 V Output Current: 0 - 5A Constant current mode (CC) when the current value exceeds the limit value of the output current. Supply power: AC 220-240V, 50Hz/60Hz. Working Temperature: -10°C - 40°C Relative Humidity: ‹ 90% Storage Conditions: -10°C - 40°C Relative Humidity: ‹ 80% The output voltage should be between 0 and nominal value continuously adjustable Voltage Stability: ≤ 0.01% Load Stability: ≤ 0.01% Recovery Time: ≤ 100 µS Useful in Power Production line testing. Mobile phone, computer, electrical maintenance.	5
45	SMPS (Switched-mode power supply)	SMPS with different Output voltage and current ranges such as (12 V, 2 A), (12 V, 5A), (12 V, 10A), (24 V, 2 A), (24 V, 5A), (24 V, 10 A), (48 V, 2 A), (48 V, 5A), and (48 V, 10A)	9
46	LCR Meter	Range: 0.1 µh to 20 h or more, 0.1 pf to 2000 µf or more, 0.1 ohm to 20 mohm or more accuracy: 2 mh, resolution: 1 uh (or better) accuracy: 20 mh, resolution: 10 uh (or better) accuracy: 200 mh, resolution: 100 uh (or better) accuracy: 2 nf, resolution: 1 pf (or better) accuracy: 20 nf, resolution: 10 pf (or better) accuracy: 200 nf, resolution: 100 pf (or better)	5

		accuracy: 2 uf, resolution: 1 nf (or better)	
47	Fire Extinguisher	Powder Type 2 kg	2
48	3D Printer - Advance	Printer Dimensions: at least 525*350*400 mm, Print Volume: at least 200*145*150 mm, Extruder Quantity: 2, Nozzle Diameter: 0.4 mm, Maximum Extruder Temperature: 240℃, Print Speed: 30-100 mm/s, Screen size: 3.5-inch touch screen, Net Weight 14.8 kg, Maximum platform Temperature 120℃, Filament Compatibility PLA, HIPS, ABS, PVA, File Input Format 3MF / STL / OBJ / FPP / BMP / PNG / JPG / JPEG files, Power 320W, Software: FlashPrint	1
49	Filament	ABS & PLA 1 kg each with Different Colors	15
50	Screwgun Kit	Power Source: Battery Powered Voltage: 18 Volts Material: Plastic Speed: 1700 RPM Maximum Power: 18 Watts Items should include: 1 pc drill, 2 pcs 18 V 1.5 Ah Li-ion batteries, charger and a solid plastic carrying case Max. Torque (hard/soft): 54 / 21 N-m Keyless chuck, No-load speed (1st gear / 2nd gear): 450 / 1700 rpm Standard for universal screwdriver bits Size 45 mm	2
51	Digital Oscilloscope	Bandwidth selections: 200/100/70MHz, 2ch input 100/70/50MHz, 4ch input maximum sampling rate: 1GSa/s maximum memory depth for each channel: 10M LCD display: 7” 800 x 480 WVGA 256 color gradient display function to strengthen waveform performance 1Mpts FFT frequency domain signal display	2
V.		**PLC based trainer kits**	
1	PLC Based Electro Pneumatic Trainer Kit	It should consists of following components: Anodized Aluminium profile Plates & Stand, Pneumatic Workstation, Shuttle Valve, Dual Pressure Valve, One-way flow control Valve Assembly, Pressure Sequence Valve Assembly, Single Acting Cylinder, Double Acting Cylinder, Manifold with Hex- Ball Valve, Filter control valve with pressure gauge, gate valve, quick push pull connectors & quick couplings, Indicator & Distributor Unit, Proximity switch, 5/2-way single and double sided Solenoid Valves with LED, Pressure Switch, Vacuum Switch and Differential Pressure Switch, Power Supply Unit (Input Voltage: 230 / 115 VAC, Output Voltage: 24 V DC, short circuit proof), 3/2 Solenoid Valve, Single with LED, Quick Exhaust Valve, Pneumatic Motor (Unidirectional), PLC Panel (Siemens), Air Compressor (should be noiseless and of good quality). The components should be capable of being mounted on an appropriate profile plate with grooves for secure and flexible positioning so that the components can be clamped firmly,	1

		quickly and safely through quick fix adaptors. Industrial components should be used in the kit so that the students get hands on practical training in using industrial components.	
2	PLC Based Electro Hydraulic Trainer Kit	It should consists of following components: Anodized Aluminium Profile Plates & Stand, Single Acting Cylinder, Double Acting Cylinder (Bore: 40 mm, Stroke: 75mm/100mm), Solenoid Valve, Proximity Sensors, Pressure Gauge, Pressure Sequence Valve, Oil Hydraulic power pack, Flow control valve, Check valve, NRV, Indicator & Distributor Unit (Electrical), Power Supply Unit (Input Voltage: 230 VAC, (47 - 63 Hz.), Output Voltage: 24 V DC, short circuit proof, output current: Max. 4.5 A), PLC Panel (Siemens), Meter in Circuit & Meter Out Circuit, Molded Cables set, High Quality Hose Pipes, Quick Release Couplings (QRC) The components should be capable of being mounted on an appropriate profile plate with grooves for secure and flexible positioning so that the components can be clamped quickly and safely through quick fix adaptors.	1
3	Automation Studio Software - SCADA	SCADA Software for Automation	1
VI.		**Desktop/Laptop and power backup**	
1	Desktop with accessories	PC with i7, 12th Gen or better Windows 10 Pro or better, 512 GB SSD or better 16GB RAM or more Screen Size 23.8 inch or more Desirable companies: Dell, HP Warranty: 03 years extended warranty Accessories should include Printer, UPS, keyboard and mouse. Printer: Laserjet technology/multifunction machine/ composite cartridge/22ppm or more UPS: Load Capacity: 660Watts / 1100VA Five 6A, 2/3 Pin Indian Power Socket (4 Battery Backed-up & Surge Protected plus 1 Surge Only Protected Outlet) Automatic Voltage Regulator (AVR) with Wide Input Voltage Range 145-290V Should be Compatible with low power loads e.g. Wi-Fi router, DSL modem At least 1 Year Warranty including Battery	3
2	Laptop	i7, 12th Gen or better Windows 10 pro or better, 512 GB SSD or better 16GB RAM or more Screen Size 14 inches or more Wi-Fi mouse should be included Desirable companies: Dell, HP Warranty: 03 years extended warranty	3
3	Inverter and battery	2 KVA Inverter: Inverter Type: Pure sine wave output Capacity & DC Voltage: 2000 VA/24 V Input Voltage Range: 100-285 V; Maximum Charging Current: 21 A Protection: Input mains protection through MCB along with overload, low battery, reverse polarity, short circuit,	1

	overcharge, deep discharge, and over-temperature protection Display: Digital Display for the status of Power back-up/battery charging time in hours and minutes; Two number of Batteries of 150 Ah capacity: Battery Type: Tall tubular inverter battery; Water Level Indicators: at least 6 Nominal Voltage: 12 V Warranty: 2 years on inverter & 3 years on inverter battery Instruction manual & warranty card

b. Trainings and workshops:

Training and Workshops organized for the UG students of different constituent colleges

Sr. No.	Programme title	Nature (Skill/ entrepreneurship/ workshop)	Date	Duration	No. of participants
1	International Webinar " Reducing Carbon Emissions-Simple Solutions to Complex Problems"	Skill	03.06.2022	1 day	96
2	Orientation programme of newly admitted UG students at COA, CCS HAU, Hisar	Skill	17.09.2022	1 day	125
3	Seminar after successful completion of 3 month international training (Texas A&M University) at COBS&H	Skill	14-03-2022	1 day	40
4	Lecture on Antibiotics resistance in agro environment: between epidemiology and microbial ecology	Skill	----------	1 day	113
5	Webinar was organised on "The Genotype-Phenotype map"	Skill	07.09.22	1 day	100
6	Webinar on future after graduation or postgraduate degree	Skill	9.09.22	1 day	45
7	Orientation programme for UG students going for international training at COA, CCSHAU, Hisar	Skill	17.12.2022	1 day	84
8	Seven days training on "Nursery Technology" at COA, Bawal	Skill and entrepreneurship	18.01.2023 to 24.01.2023	7 days	25
9	Genomics and Metabolomics for food security	Skill	21.12.2022 to 27.12.2023	7 days	40
10	Training on "Processing Technology of Fruit and Vegetables" at COA, Bawal	Skill and entrepreneurship	27.01.2023 to 31.01.2023	5 days	25
11	International Conference on "Climate resilient agriculture for food security and sustainability" at CCSHAU, Hisar	Skill and entrepreneurship	17.02.2023 to 19.02.2023	3 days	1340
12	Training on "Acquaintance to UAV for crop protection" at COAE&T, CCS HAU, Hisar	Entrepreneurship	21.11.2022 to 23.11.2022	3 days	50
13	Training on "Application of UAVs for crop health monitoring using hyperspectral multispectral imagery" at COAE&T, CCS HAU, Hisar	Entrepreneurship	05.12.2022 to 07.12.2022	3 days	50
14	Training on "Installation of Electrical appliances for farming" at COAE&T, CCS HAU, Hisar	Entrepreneurship	09.01.2023 to 11.01.2023 and 23.01.2023 to 25.01.2025	6 days	50

15	Training on "Training on CAD/CAM" at COAE&T, CCS HAU, Hisar	Entrepreneurship	06.02.2023 to 08.02.2023 and 20.02.2023 to 22.02.2023	6 days	50
16	Training on "Second generation Bio Ethanol Production" at COAE&T, CCS HAU, Hisar	Entrepreneurship	02.01.2023 to 04.01.2023 and 16.01.2023 to 18.01.2023	6 days	50
17	Training on "Biogas Production from Agro-Waste Residue" at COAE&T, CCS HAU, Hisar	Entrepreneurship	05.01.2023 to 07.01.2023 and 19.01.2023 to 21.01.2023	6 days	50
18	Training on "Training on value added products for cereals and millets" at COAE&T, CCS HAU, Hisar	Entrepreneurship	13.02.2023 to 15.02.2023 and 16.02.2023 to 18.02.2023	6 days	50
19	Training on "Valorization of value added Product from agricultural waste" at COAE&T, CCS HAU, Hisar	Entrepreneurship	1 to 3 Feb 2023 6 to 8 Feb 2023	6 days	50
20	Lecture on 'The Fuss About Food Supplements' organized under online lecture series "Food safety and Security: Global Perspective" at COHS, CCSHAU, Hisar	Skill and Entrepreneurship	06.02.2023	1 day	200
21	Training on Organic farming to impart knowledge and skill to students for agri-entrepreneurship in organic farming	Skill and Entrepreneurship	07.02.2023 to 13.02.2023	7 days	25
22	INDO-POLISH International training on "Biotechnologies in Environmental Engineering-Scientific and Business Perspective	Skill	13-02-2023 to 19-02-2023	7 day	74
23	Recent Advances in Agriculture Basic to advance tools	Skill	19.02.2023 to 25.02.2023	6 day	50

c. Overseas trainings

- 13 faculties were deputed for the overseas training.

- 84 students were identified for international training programme for the academic year 2022-23 and 69 students were deputed at Thailand, Prague and Vietnam.

Faculty training: The 13 faculty members were deputed to international organization for a period of 3 months for the international training and to make the long term collaborations in advance research.

List of Faculty's deputed for three months international training during 2022-23

Sr. No.	Name of Faculty Member	Department	Area of priority / training	Host Institute	Duration	Expenditure (Rs)
1	Dr. Seema Sangwan	Microbiology	International Pedagogy	University of Copenhagen, Denmark	3 Months	783632/-
2	Dr. Sandeep Dhundhara	Basic engineering	Agrirobotics & Automation agriculture	Birmingham City University (BCU), United Kingdom,	3 Months	783632/-
3	Dr. Varsha Rani	Foods &Nutrition	International Pedagogy	Wageningen University and Research Center (WUR), The Netherlands	3 Months	783632/-
4	Dr. Sandeep Arya	Forestry	International Pedagogy	Texas A&M University, College Station, Texas, USA	3 Months	783632/-
5	Dr. Karmal Singh	Agronomy	INM	Texas A&M University, College Station, Texas, USA	3 Months	783632/-
6	Dr. Dalip Kumar Bishnoi	Agri Eco	International Pedagogy	Texas A&M University, College Station, Texas, USA	3 Months	783632/-
7	Dr. Shweta	Agronomy	International Pedagogy	Texas A&M University, College Station, Texas, USA	3 Months	783632/-
8	Dr. Vinod Kumar	Pathology	International Pedagogy	Texas A&M University, College Station, Texas, USA	3 Months	783632/-
9	Dr. Prakash Banakar	Nematology	International Pedagogy	University of Clemson, USA	3 Months	783632/-
10	Dr. Shiwani	Biochemistry	International	University of	3	783632/-

	Mandhania		Pedagogy	Clemson, USA	Months	
11	Dr. Vinod Goyal	Botany & Physiology	International Pedagogy	Institute of Genomics for Crop Abiotic Stress Tolerance, Texas, USA	3 Months	783632/-
12	Dr. Rajesh Kumar	G&PB	Molecular Breeding	Molecular Plant Breeding, AVR's Grains Innovation Park (GIP), Horsham, Victoria, Australia	3 Months	783632/-
13	Dr. Rahul	Biochemistry	Nanotechnology	Department of Biological Sciences, National University of Singapore, Singapore	3 Months	783632/-

Students training:

69 students have been sent to Czech University of Life Sciences, Prague, Asian Institute of Technology, Thailand and Can Tho University, Vietnam for a period of two months international training.

Detail of the students attended international training (2022-23) at AIT, Thailand

Sr. No.	Name of Student	Admission No.	Host Institute	Date/ Duration	Purpose	Expenditure
1.	Jatin	2020AE49B(L)II	Asian Institute of Technology (AIT), Bangkok, Thailand	15 Jan to 14 March 2023/two months	Training for Strengthening Institutional Capacity to produce skilled professional for Market Driven Agriculture	8308700/-
2	Kuljeet	2020AE50B(L)II)				
3	Akash	2019AE02BIV				
4	Nitish Kumar	2019AE18BIV				
5	Ravinder	B2017A38BVI				
6	Chasin	K2019A06BIV				
7	Sahil	K2019A21BIV				
8	Satender	K2019A23BIV				
9	Harsh	K2019A08BIV				
10	Ajay	B2019A01BIV				
11	Bhavya Sandhu	2019HS09BIV				
12	Sheetal Rani	2019HS72BIV				

13	Rashmi	B2019A15BIV				
14	Shilpa	2019HS74BIV				
15	Pooja	B2019A13BIV				
16	Rishika Raj	2019AE31BIV				
17	Pragya Choudhary	2019AE21BIV				
18	Mehak	2019AE14BIV				
19	Pratibha	B2017A32BVI				

Details of the students attended international training (2022-23) at CULS, Prague

Sr. No.	Name	Admission No.	Host Institute	Date/Duration	Purpose	Expenditure
1	Chetan Singh	K2019A07BIV	Czech University of Life Science, Prague	22 Jan to 23 March 2023/two months	Training for Strengthening Institutional Capacity to produce skilled professional for Market Driven Agriculture	11369800/-
2	Nisha	K2019A17BIV				
3	Neha	B2017A27BVI				
4	Love preet singh	B2017A17BVI				
5	Meenakshi	K2019A15BIV				
6	DikshaBamal	2019HS15BIV				
7	Vaishali	2019HS89BIV				
8	Krishna	K2019A10BIV				
9	Akhil	2019A12BIV	Czech University of Life Science, Prague	23 Jan to 24 March 2023/two months		
10	Nandni	2019A76BIV				
11	Aayushi Pareek	2019A02BIV				
12	Pooja Berwal	2019A87BIV				
13	RituYadav	2019A103BIV				
14	Jyoti Khatkar	B2017A15BVI				
15	Mitul	B2017A21BVI				
16	Kartiki Sharma	2019A51BIV				
17	NishaYadav	2019A81BIV				
18	Diksha	2019HS14BIV				
19	Urvashi	2019A123BIV				
20	Preeti	B2019A14BIV				
21	Tinnu	2019A121BIV				
22	Anjeeta	2019A19BIV				
23	Lovely	2019HS32BIV				
24	Ritika	2019A101BIV				
25	Manju Bala	B2017A20BVI				
26	Rohit	B2019A18BIV				

Details of the students attended international training (2022-23) at CTU, Vietnam

Sr. No.	Name	Admission No.	Host Institute	Date/Duration	Purpose	Expenditure
1	Kiran	B2017A16BVI	Can Tho University Campus-II, 3/2, Street, Ninth Kieu, Dist. Can Tho City, Vietnam	10 Feb to 11 April/two Months	Training for Strengthening Institutional Capacity to produce skilled professional for Market Driven Agriculture	10495200/-
2	Mansi Bishnoi	2019A65BIV				
3	Rimpi	2019A99BIV				
4	Ankit	K2019A03BIV				
5	Neeraj	B2017A26BVI				
6	Shiksha Rani	B2017A46BVI				
7	Keshav Saharan	2019A52BIV				
8	Sangeeta	B2017A45BVI				
9	Sakshi Nimbal	B2017A44BVI`				
10	Chetna	2019A33BIV				
11	Manju	2019A64BIV				
12	AadeshKaushik	B2017A1BVI				
13	Parveen	B2017A33BVI				
14	Ankita Chauhan	2019A23BIV				
15	Mosim	2019A72BIV				
16	Yogita	B2017A60BVI				
17	Rohit Kumar	2019A105BIV				
18	Rahul	B2017A35BVI				
19	Garima	2019HS18BIV				
20	DeepikaYadav	2019A35BIV				
21	Aastha	2019HS03BIV				
22	Sakshi	2019HS62BIV				
23	Preeti	2019HS49BIV				
24	Pooja	2019A86BIV				

d. Administrative work:

- Finance and related work:
  - All payments were done through PFMS system.
  - IUFRs were submitted for all the four quarters and annual expenditure was also submitted
- Review meetings:
  - Review meetings conducted by PIU for PMTS, Procurement, EAP and ESP were attended by PI, Co-PIs and team.
  - The suggestions and instructions given during the review meetings were noted and implemented thereafter
- Student related:
  - Various online and offline national and International seminars, webinars and workshops, conferences were conducted during 2022-23 academic year.

- Environmental Sustainability Plan:
    - Tree Plantation

    All the compliances related to environmental safety were fully complied while implementing the construction / renovation activities carried out in the project.

- Equity Action Plan:
    - The selection of faculty and students were made as per the social equity action plan.
    - Facilities for physically disabled persons like toilets, ramps, lift were monitored and maintained in the campus

e. Major innovations/achievements during the period

- Procured different goods and equipments to improve the work efficiency of students and researchers.
- A number of offline/online national and International trainings, webinars, workshops, activities and competitions etc., were organized from April 2022 to March 2023.
- INDO-POLISH International training on "Biotechnologies in Environmental Engineering-Scientific and Business Perspective
- 'Azadi ka Amrit Mahotsava' celebrated in commemoration of 75 years of Indian Independence. On this auspicious occasion, CCS Haryana Agricultural University, Hisar organized an International Webinar on "Reducing Carbon Emissions-Simple Solutions to Complex Problems" on 3rd June, 2022.
- Online Motivational lectures and career opportunity lectures were delivered to students of CCCSHAU, Hisar, by eminent and successful alumni of CCSHAU.

ii. Progress made during period - Component 1a: Support to Institutional Development Plan (IDP) of Aus

a. Output-outcome monitoring

S. N.	Particulars	Apr'22 to March'23		Remarks (Action plan for areas where improvement is needed)
		Plan	Achievement	
1.	Number of new facilitative units established to enable academic and research infrastructure (IIIC- Industry	NIL	NIL	NIL

	Institution Interaction Cell / Start up cell / incubation cell / experiential learning unit / placement cell etc.)			
2.	Number of pilot courses added / upgraded on communication skills, entrepreneurial skills, information processing, creative and innovative thinking, leadership skills, industry-oriented courses etc.	**3** Two certificate course in the Dept of Soil and Water Engg. and Processing and Food Engg. was planned in COAET college and One Certificate course in the Deptt of. F&N was planned	NIL	NIL
3.	Additional revenue generated through institutional activities with industries in INR lakhs	-	-	-
4.	Revenue generated through public usage of infrastructure for academic activities in INR lakhs	-	-	-
5.	Number of MoUs signed with industry for knowledge exchange programs/ internships / short term training programs etc.	-	37	Successfully signed
6.	Improved AU revenue generation (% change in Internal revenue of AU)	-	-	-
7.	Number of international trainings undertaken by faculties under IDP comp	22	13	-

8.	Number of national trainings undertaken by faculties under IDP comp	-	-	-
9.	Number of international trainings undertaken by students under IDP comp	84	69	-
10.	Number of national trainings undertaken by students under IDP comp	-	23	Trainings, Webinar, Orientation Programme and Lectures were organized
11.	Number of direct beneficiaries of the project	-	2782	-
12.	Number of female beneficiaries out of total direct beneficiaries	-	1268	-

b. Input and activity monitoring

		Apr'22 to March'23		
Input / Activity indicator	Sub- head / category	Expenditure / input in INR lakhs		Activity elaboration
		Planned	Utilization	
Goods and equipments	Equipment, Plant & Machinery	-	-	-
	Office equipment	0.47	0.47	
	Laboratory equipment	152.26	100.86	
	Furniture & fixtures	0.32	0.32	
	Computers and Peripherals	11.31	11.31	
	Books and Journals	2.80	2.80	
Civil works	Minor repair and renovation works	27.96-	17.96	
Human capacity building	National level training	-	-	
	International level training	194.51	101.87	

	Short visit/ seminars	25.0	12.90	
	Meetings and workshops	31.52	0.0	
Consultancy	National level consultancies	-	-	
Recurrent cost / Miscellaneous	Travel	9.40	8.00	
	Contractual services	23.16	16.86	
	Operational costs	675.82	313.19	
	Institutional charges	0.55	0.40	
	Total	1127.12	586.94	

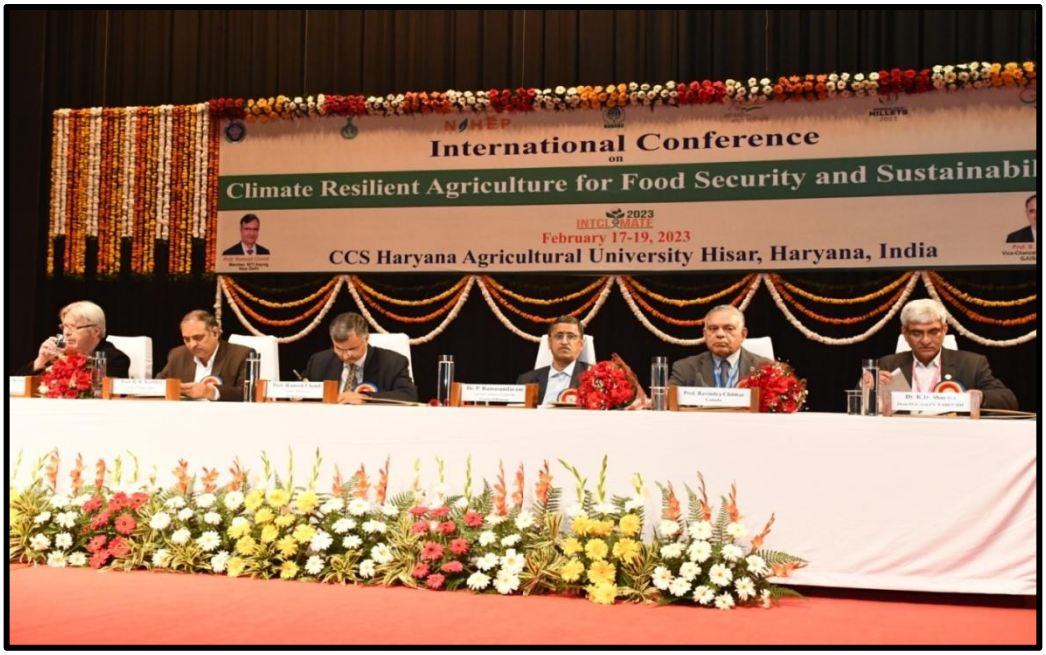
List of Non Exclusive License Agreements (2022-2023)

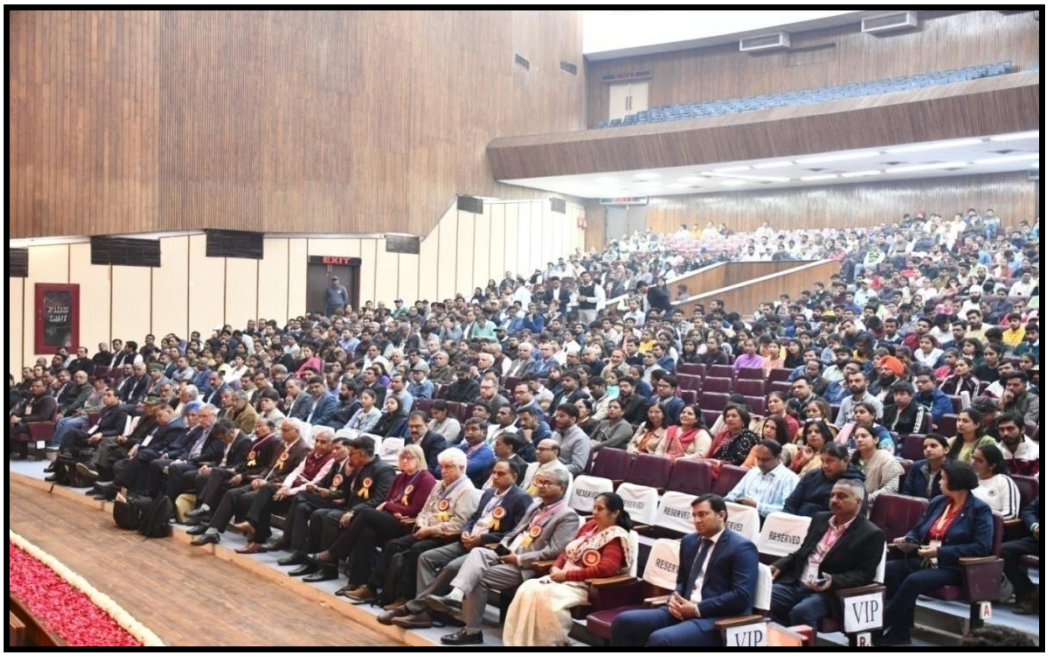
S. No.	Name of the Organization	Product/Process/ Technology	Date/Duration of MoU
(A.) Wheat Variety WH 1270			
1.	Dev Agri-tech Pvt. Ltd., Gurugram	WH 1270	31.05.2022 (3 Years)
2.	Uttam seeds, Hisar	Wheat Variety WH 1270	15.10.2022 (3 Years)
3.	Quality hybrid seed company, Hisar	Wheat Variety WH 1270	26.10.2022 (3 Years)
4.	Shaktivardhak Hybrid seeds Pvt Ltd, Hisar	Wheat Variety WH 1270	26.10.2022 (3 Years)
5.	Shiv Ganga Hybrid Seeds Pvt Ltd, Hisar	Wheat Variety WH 1270	26.10.2022 (3 Years)
6.	Haryana Seed Company, Karnal	Wheat Variety WH 1270	26.10.2022 (3 Years)
7.	Kurukshetra Agritech Pvt Ltd, Indri, Karnal	Wheat Variety WH 1270	26.10.2022 (3 Years)
8.	Kastkar Seeds Vidisha, M.P.	Wheat Variety WH 1270	26.10.2022 (3 Years)
9.	Model Agritech India Ltd, Indri, Karnal	Wheat Variety WH 1270	26.10.2022 (3 Years)
10.	Unnat Beej Company, sirsa	Wheat Variety WH 1270	26.10.2022 (3 Years)
11.	Lakshya seeds, Uchana, Jind	Wheat Variety WH 1270	10.11.2022 (3 Years)
12.	Shankar Seeds, Safidon, Jind	Wheat Variety WH 1270	10.11.2022 (3 Years)
13.	Kiran Seeds, Kurukshetra	Wheat Variety WH 1270	10.11.2022 (3 Years)
14.	Shaktimaan Seeds, Sirsa	Wheat Variety WH 1270	10.11.2022 (3 Years)
15.	Harbir Agrotech, Karnal	Wheat Variety WH 1270	10.11.2022 (3 Years)
16.	Asian Seeds, Bhadson, Karnal	Wheat Variety WH 1270	10.11.2022 (3 Years)
17.	Khalsa Exports, Karnal	Wheat Variety WH 1270	10.11.2022 (3 Years)
18.	Sahib Seeds Ltd., Karnal	Wheat Variety WH 1270	10.11.2022 (3 Years)
19.	Surya Seeds & Chemicals, Fatehabad	Wheat Variety WH 1270	10.11.2022 (3 Years)

20.	Jai Shri ram export seeds, Narwana	Wheat Variety WH 1270	10.11.2022 (3 Years)
21.	Growtech Seeds India Pvt. Ltd., hisar	Wheat Variety WH 1270	10.11.2022 (3 Years)
22.	Jot Karnal Seed Farm, Ajnala, Amritsar PB.	Wheat Variety WH 1270	10.11.2022 (3 Years)
23.	Tiwana Seed Store, bhwanigarh, Sangrur	Wheat Variety WH 1270	10.11.2022 (3 Years)
24.	Onkar Seeds, Karnal	Wheat Variety WH 1270	10.11.2022 (3 Years)
25.	Supreme Seeds, fatehabad	Wheat Variety WH 1270	10.11.2022 (3 Years)
26.	Support Organic Farm India (SOFI), New Delhi	Wheat Variety WH 1270	10.11.2022 (3 Years)
27.	Fame Seeds, Hisar	Wheat Variety WH 1270	10.11.2022 (3 Years)
28.	Semenis Seed Company, Panipat	Wheat Variety WH 1270	10.11.2022 (3 Years)
29.	K.D. Seeds Mathana, Kurushetra	Wheat Variety WH 1270	10.11.2022 (3 Years)
30.	Punjab Seeds, Sirsa	Wheat Variety WH 1270	10.11.2022 (3 Years)
31.	Jai Agro Seeds, Hisar	Wheat Variety WH 1270	10.11.2022 (3 Years)
(B.) Raya Varieties			
32.	Dev Agri-tech Pvt. Ltd., Gurugram	RH 725	31.05.2022 (3 Years)
33.	Support Organic Farm India (SOFI), New Delhi	Raya Variety RH 725	10.11.2022 (3 Years)
34.	My Kisan Agro (MKD Seeds), Neemach, M.P	Raya Variety RH 725, RH 761	10.11.2022 (3 Years)
(C.) Onion Variety (HOS3)			
35.	Mansoon Seeds Pvt. Ltd., Pune.	HOS3	28.04.2022 (3 Years)
(D.) Oats OS 405			
36.	Dev Agri-tech Pvt. Ltd., Gurugram	OS 405	31.05.2022 (3 Years)

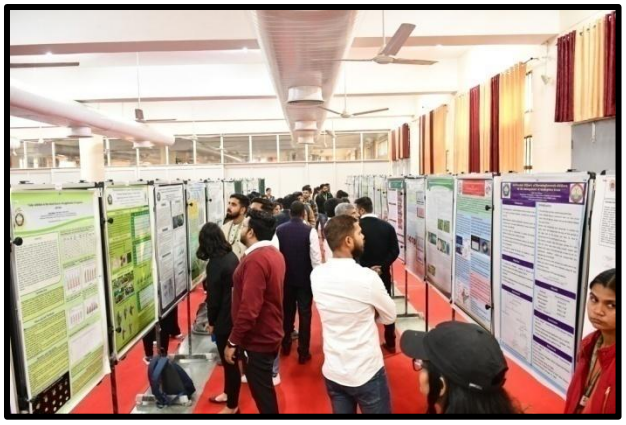
Plan ahead (Key activities) for next reporting period

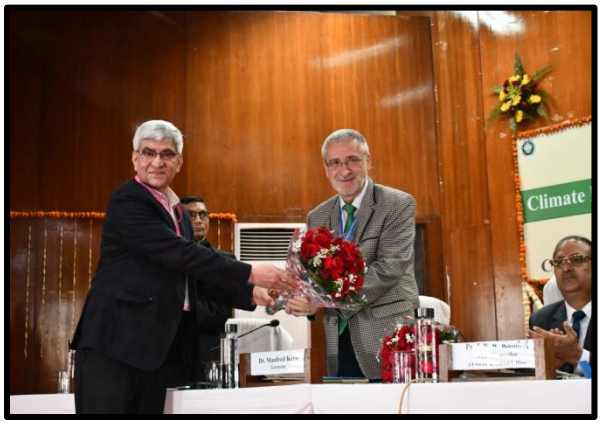
- Students and faculty international training programme
- Certificate courses
- Skill enhancement training in national premier institutes, Entrepreneurship courses and certificate courses
- National workshops, industry linkage conclave for better student placement avenues

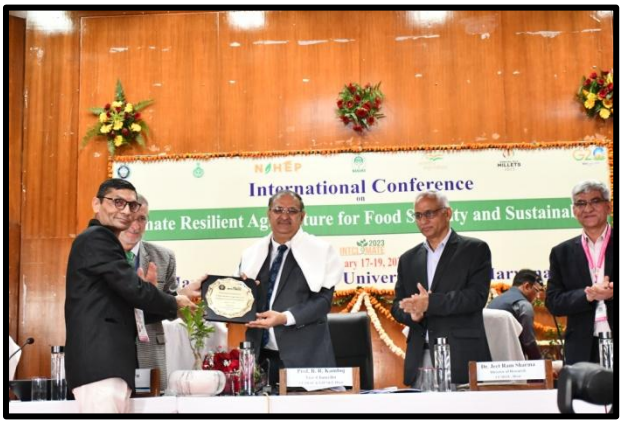




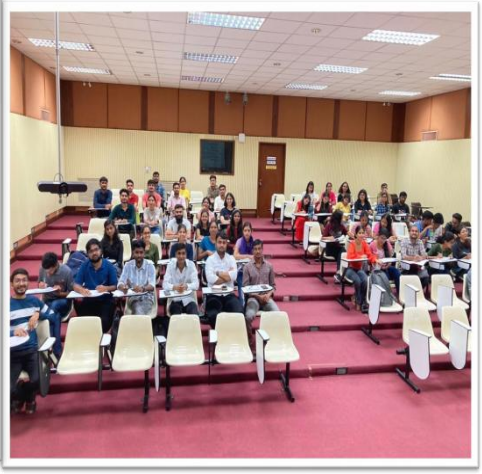
Inauguration of International Conference on "Climate resilient agriculture for food security and sustainability at I.G. Auditorium, CCSHAU, Hisar

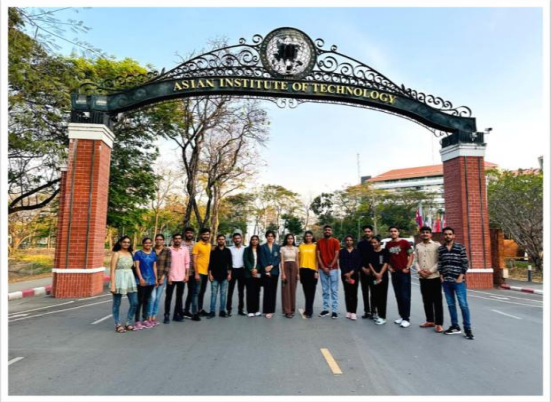


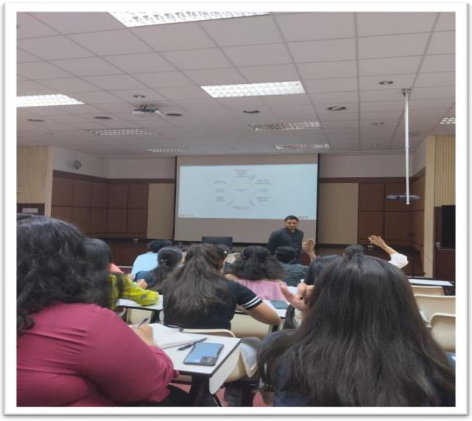




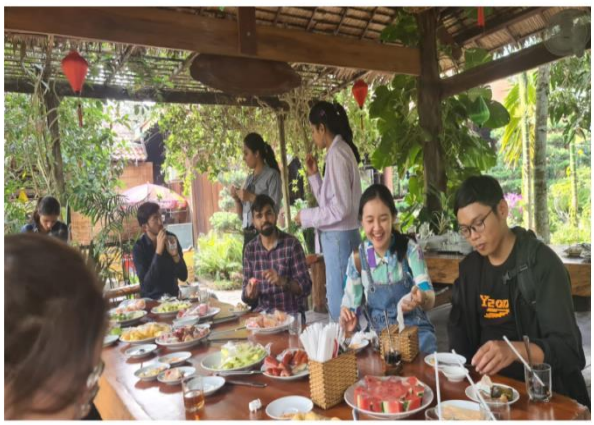
Glimpse of International Conference at CCSHAU, Hisar



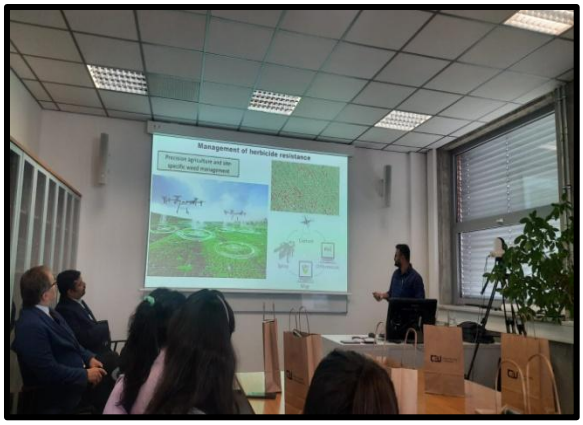


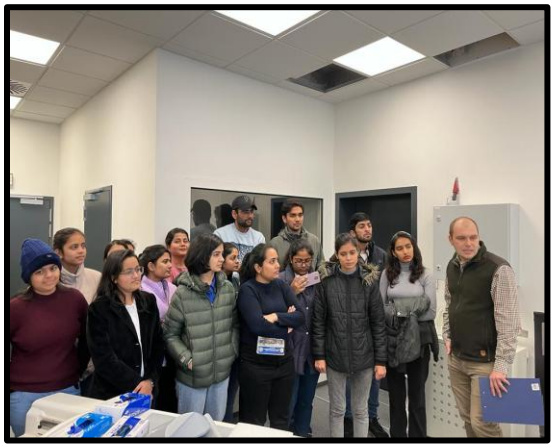


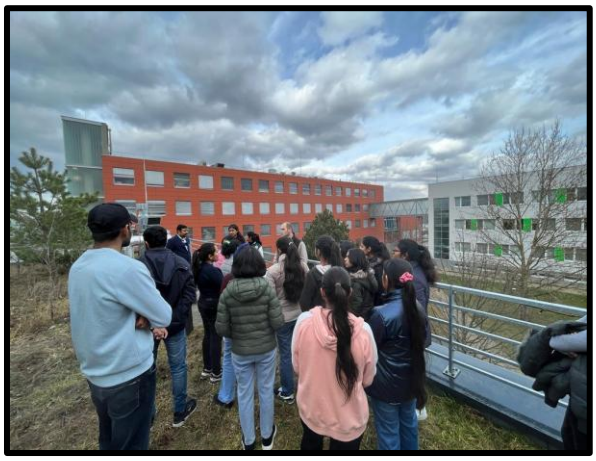
Students at Asian Institute of Technology, Bangkok



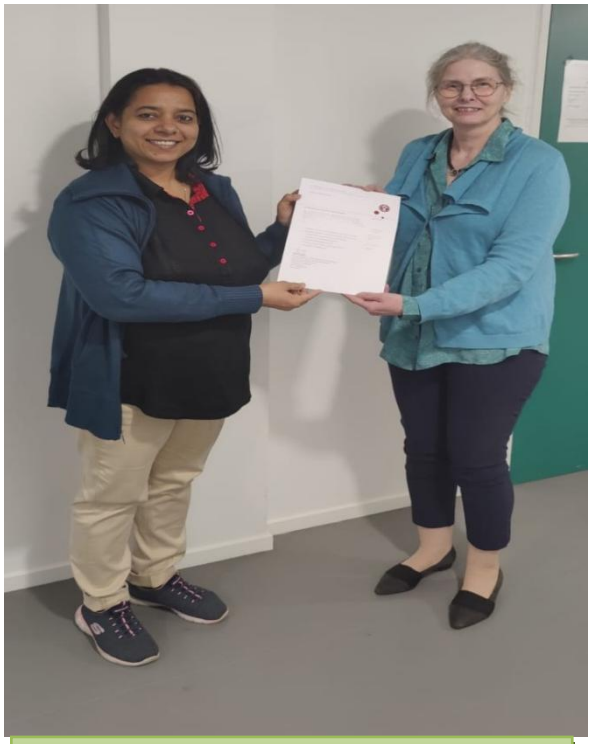
Students at Cần Thơ University,VIETNAM



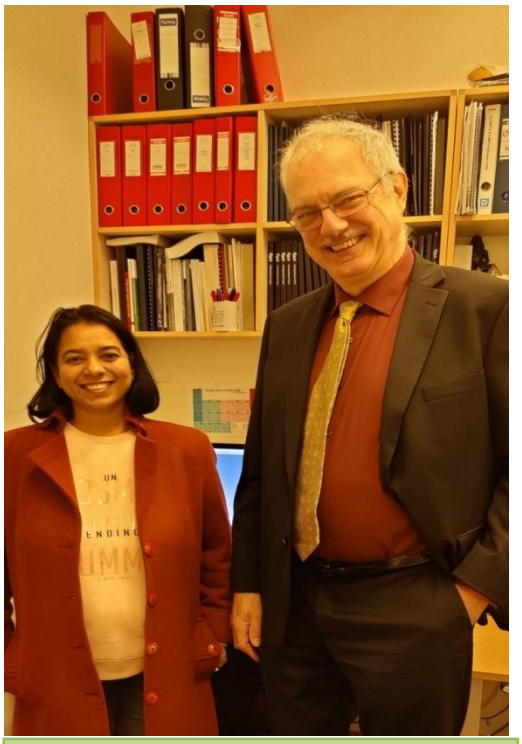




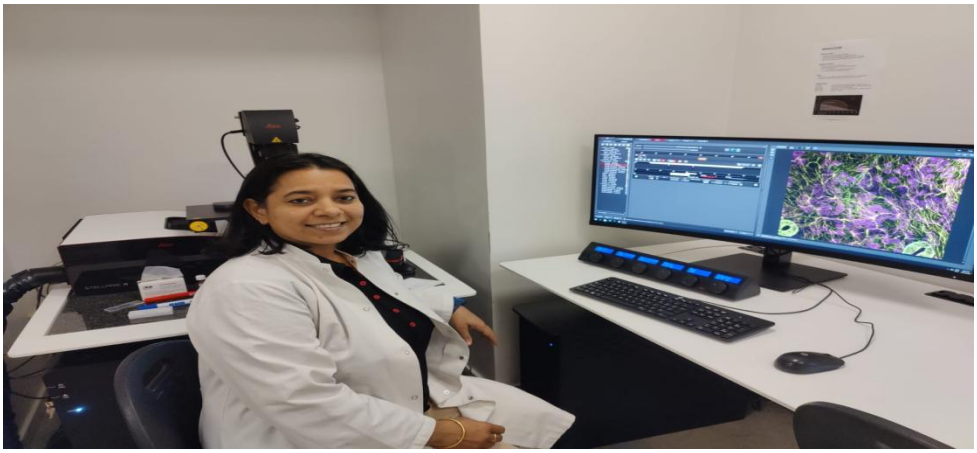
Students at Czech University of Life Sciences, Prague



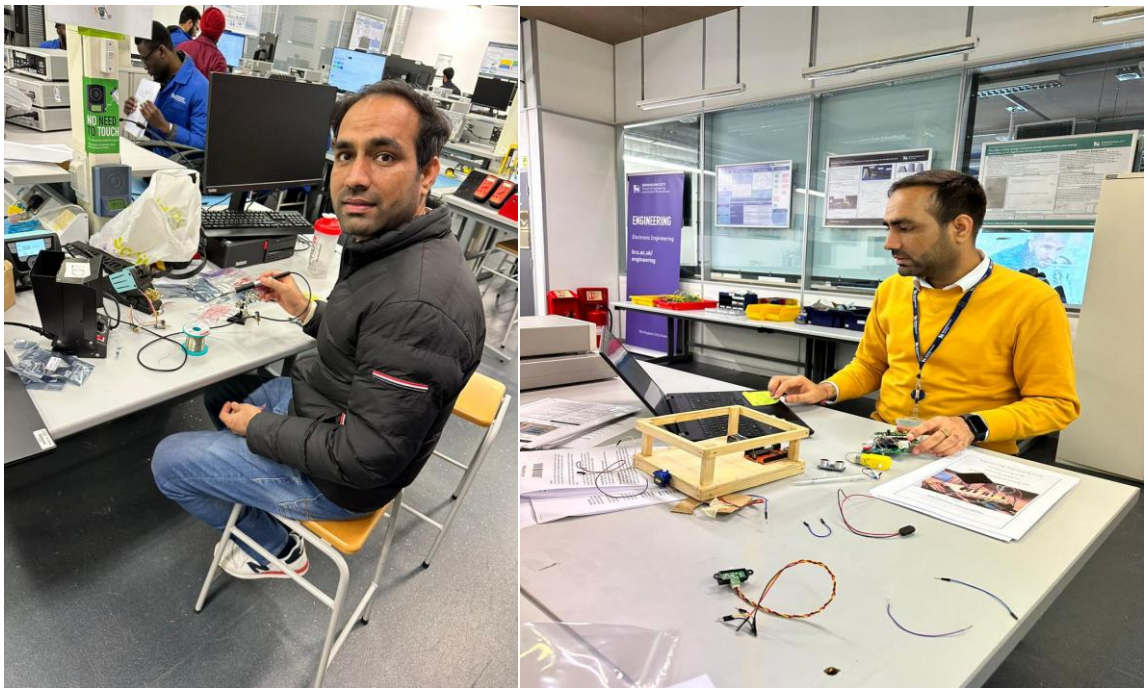
Dr. Seema Sangwan with Dr. Bodil Jørgensen, on completion of training



With Dr. Morten Meldal (2022) Nobel Prize in Chemistry for his work on 'click chemistry



Confocal Microscopy Techniques at Frederiksberg Campus, University of Copenhagen, Denmark



Dr. Sandeep Dhundhara at School of Engineering and the Built Environment, Birmingham City University, UK

IDP-NAHEP in Media

हकृवि में इंडो-पोलिस अंतरराष्ट्रीय प्रशिक्षण संपन्न

सिटी पल्स न्यूज, हिसार। हरियाणा कृषि विश्वविद्यालय के मौलिक विज्ञान और मानविकी महाविद्यालय में आयोजित 7 दिवसीय इंडो-पोलिस अंतरराष्ट्रीय प्रशिक्षण कार्यक्रम का समापन हुआ।

कार्यक्रम में पौलेंड के वारसव विश्वविद्यालय के प्रो. लुकाज, उप-अधिष्ठाता, जीव विज्ञान संकाय, डॉ. प्रगव सहायक प्रोफेसर, पर्यावरण एवं सूक्ष्मजीव विज्ञान-जैव प्रौद्योगिकी विभाग ने विश्वविद्यालय के कुलपति प्रो. बी.आर काम्बोज से मुलाकात की, जिसमें जल उपचार, मिट्टी के बॉयो-रेमेडिएशन, भारी धातुओं की बॉयोलीचींग, जैव ईंधन उत्पादन, अवशेषों का सही प्रयोग और अगली पीढ़ी के जैव उर्वरक की उपयोगिता विषय पर चर्चा की गई।

कुलपति प्रो. बी.आर काम्बोज ने जीवाणु खाद उत्पादन प्रक्रिया, कृषि अवशेष प्रबंधन, कृषि उत्पादन के बढ़ाने की नवीनतम जैविक तरीकें, ऊर्जा और औद्योगिकी उद्देश्यों के लिए अवशेष बायोमास प्रबंधन के बारे में चर्चा की। स्नातकोत्तर अधिष्ठाता व आईडीपी परियोजना के सह-पीआई डॉ. के.डी शर्मा ने बताया कि इस प्रशिक्षण में वैज्ञानिकों ने छात्रों से करियर और अनुस्धान व्यवसायिकरण के पहलुओं के बारे में बताया। ताकि इन विषयों पर मंथन कर विद्यार्थी अपना करियर बेहतर संवार सकें। उन्होंने कृषि उत्पादन के बढ़ाने के नवीनतम जैविक तरीकें व कृषि सूक्ष्म जीव विज्ञान के क्षेत्र में उपयोगी पहलुओं के बारे में भी छात्रों को बताया। मौलिक विज्ञान एवं मानविकी महाविद्यालय के अधिष्ठाता व पाठ्यक्रम निदेशक डॉ. नीरज कुमार ने प्रशिक्षण की विस्तृत रिपोर्ट प्रस्तुत की। पाठ्यक्रम समन्यवक डॉ. अनुज रणा ने पौलेंड के वैज्ञानिक प्रो. लुकाज और डॉ. प्रगव का धन्यवाद किया।

जलवायु परिवर्तन व कृषि एक दूसरे को प्रभावित कर रहे हैं : प्रो. रमेश चंद

◆हकृवि में अंतरराष्ट्रीय सम्मेलन का शुभारंभ

डेमोक्रेटिक फंट

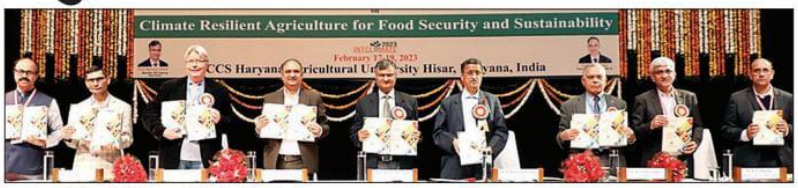
हिसार/पवन सैनी. चौधरी चरण सिंह हरियाणा कृषि विश्वविद्यालय में ''जलवायु परिवर्तन के दौर में कृषि से खाद्य सुरक्षा और स्थिरता'' विषय पर 3 दिवसीय अंतरराष्ट्रीय सम्मेलन का शुभारंभ हुआ। इस अवसर पर नीति आयोग के सदस्य प्रो. रमेश चंद मुख्य अतिथि थे व नेशनल एग्रीकल्चरल हायर एजुकेशन प्रोजेक्ट (एन.ए.एच.ई.पी) के राष्ट्रीय को-ओर्डिनेटर डॉ. पी. रामासुंदरम, विशिष्ट अतिथि जबकि सम्मेलन की अध्यक्षता विश्वविद्यालय के कुलपति प्रो. बी.आर. काम्बोज ने की। मुख्य अतिथि प्रो. रमेश चंद ने संबोधन में कहा कि जलवायु परिवर्तन न केवल कृषि क्षेत्र को बल्कि हर घर के बजट को प्रभावित कर रहा है। देश की बढ़ती जनसंख्या जो ज्यादातर कृषि पर निर्भर है, के लिए जलवायु परिवर्तन के दुष्प्रभाव चिंतनीय हो सकते हैं। पिछले 100 वर्षों में

भारत के औसत तापमान में करीब 0.6 डिग्री सेल्सियस की बढ़ोतरी रिकार्ड की गई है। तापमान बढने, बरसाती दिनों की संख्या में कमी व घटते जल स्तर के कारण धान-गेंहू फसल चक्र की पैदावार में 4.5 से 9 प्रतिशत तक की कमी हो रही है। जलवायु परिवर्तन से हो रहे दुष्प्रभावों से निपटने के लिए न केवल पॉलिसी प्लानर बल्कि कृषकों व आम जनता को भी सतर्क रहने की जरूरत है। उन्होंने जलवायु परिवर्तन के कृषि क्षेत्र में होने वाले दुष्प्रभावों से संबंधित मुख्य बिन्दु बताए-

1. जलवायु परिवर्तन व कृषि दोनों एक दूसरे से जुड़े है। जहां एक ओर जलवायु परिवर्तन कृषि को प्रभावित कर रहा है वहीं कृषि की प्रणालियां भी जलवायु को प्रभावित कर रही हैं।

2. कृषि क्षेत्र में उपयुक्त फसल, किस्म का चुनाव व कृषि पद्धतियों का सही इस्तेमाल जलवायु परिवर्तन से निपटने में बेहतर भूमिका निभा सकता है। 3. कृषि क्षेत्र में नवीनतम तकनीक का इस्तेमाल जलवायु परिवर्तन से निपटने में सहायक हो सकता है जैसे धान की पराली का प्रबंधन, मिल्लेट फसलों की खेती व संरक्षण खेती की तकनीक का इस्तेमाल। 4. कृषि में होने वाला निवेश जलवायु को प्रभावित करता है।

अंतरराष्ट्रीय सम्मेलन वैज्ञानिकों, व शोधार्थियों को सीखने व अनुभव साझा करने के लिए मंच प्रदान करेगा : डॉ. वी. रामासुन्दरम



पुस्तक का विमोचन के दौरान मुख्यातिथि प्रो. रमेश चंद व अन्य। आज समाज

- जलवायु परिवर्तन व कृषि एक दूसरे को प्रभावित कर रहे हैं: प्रो. रमेश चंद
- हकृवि में अंतरराष्ट्रीय सम्मेलन का शुभारंभ

प्रवीन कुमार

हिसार। चौधरी चरण सिंह हरियाणा कृषि विश्वविद्यालय में ह्याह्यजलवायु परिवर्तन के दौर में कृषि से खाद्य सुरक्षा और स्थिरता विषय पर 3 दिवसीय अंतरराष्ट्रीय सम्मेलन का शुभारंभ हुआ। इस अवसर पर नीति आयोग के सदस्य प्रो. रमेश चंद मुख्य अतिथि थे व नेशनल एग्रीकल्चरल हायर एजुकेशन प्रोजेक्ट (एन.ए.एच.ई.पी) के राष्ट्रीय को-ऑर्डिनेटर डॉ. पी. रामासुंदरम, विशिष्ट अतिथि जबकि सम्मेलन की अध्यक्षता विश्वविद्यालय के कुलपति प्रो. बी.आर. काम्बोज ने की।

मुख्य अतिथि प्रो. रमेश चंद ने संबोधन में कहा कि जलवायु परिवर्तन न केवल कृषि क्षेत्र को बल्कि हर घर के बजट को प्रभावित कर रहा है। देश की बढ़ती जनसंख्या जो ज्यादातर कृषि पर निर्भर है, के लिए जलवायु परिवर्तन के दुष्प्रभाव चिंतनीय हो सकते हैं।

पिछले 100 वर्षों में भारत के औसत तापमान में करीब 0.6 डिग्री सेल्सियस की बढ़ोतरी रिकार्ड की गई है। तापमान बढ़ने, बरसाती दिनों की संख्या में कमी व घटते जल स्तर के कारण धान-गेंहू फसल चक्र की पैदावार में 4.5 से 9 प्रतिशत तक की कमी हो रही है।

जलवायु परिवर्तन से हो रहे दुष्प्रभावों से निपटने के लिए न केवल पॉलिसी प्लानर बल्कि कृषकों व आम जनता को भी सतर्क रहने की जरूरत है। सम्मेलन के विशिष्ट अतिथि डॉ. वी. रामासुन्दरम ने बदलते जलवायु पर चर्चा करते हुए बताया कि जलवायु परिवर्तन के परिवेश में छोटी जोत वाले किसानों के हितों को ध्यान में रखते हुए खाद्यान्न एवं पोषण की सुरक्षा व स्थिरता को बनाए रखना जरूरी है।

कृषि आधारित प्रबंधन तकनीक जैसे कि जीरों टिलेज, धान की सीधी बिजाई, जलवायु परिवर्तन के प्रति सहनशील किस्मों को अपनाकर, फसल विविधिकरण, पोषक तत्व प्रबंधन, लेजर लेवलींग और सूक्ष्म सिंचाई को अपनाकर, गुणवत्तापूर्ण बीज की व्यवस्था व पशुधन के लिए चारे की उपलब्धता सुनिश्चित करने के लिए चारा बैंकों की स्थापना जरूरी है। हरियाणा का पूरे भारत में खाद्यान उत्पादन में दूसरा स्थान है। प्रदेश में 1.93 लाख छोटे व मध्यम वर्गीय किसान जलवायु परिवर्तन के कारण प्रभावित हुए है। यह सम्मेलन अंतरराष्ट्रीय स्तर के वैज्ञानिकों व शोधार्थियों को आपस में जोड़ने, सीखने व अनुभव साझा करने के लिए मंच प्रदान करेगा।

जलवायु परिवर्तन के कृषि क्षेत्र में होने वाले दुष्प्रभावों से संबंधित मुख्य बिन्दु बताए

1. जलवायु परिवर्तन व कृषि दोनों एक दूसरे से जुड़े है। जहां एक ओर जलवायु परिवर्तन कृषि को प्रभावित कर रहा है वहीं कृषि की प्रणालियां भी जलवायु को प्रभावित कर रही हैं।
2. कृषि क्षेत्र में उपयुक्त फसल, किस्म का चुनाव व कृषि पद्धतियों का सही इस्तेमाल जलवायु परिवर्तन से निपटने में बेहतर भूमिका निभा सकता है।
3. कृषि क्षेत्र में नवीनतम तकनीक का इस्तेमाल जलवायु परिवर्तन से निपटने में सहायक हो सकता है जैसे धान की पराली का प्रबंधन, मिल्चेट फसलों की खेती व संरक्षण खेती की तकनीक का इस्तेमाल।
4. कृषि में होने वाला निवेश जलवायु को प्रभावित करता है।

हमारा लक्ष्य कम लागत में कृषि का उत्पादन बढ़ाना व युवाओं को कृषि व्यवसाय की तरफ आकर्षित करना: प्रो. बी. आर काम्बोज

विश्वविद्यालय के कुलपति व सम्मेलन के संरक्षक प्रो. बी. आर काम्बोज ने बताया कि भारत की जनसंख्या के काम का 54.6 प्रतिशत हिस्सा कृषि से जुड़ा हुआ है। कृषि का भारत की कुल जीडीपी में 19.9 प्रतिशत योगदान है। वर्तमान में भारत में कृषि-खाद्यान से जुड़ी हुई योजनाओं के सामने दो चुनौतियां है। पहली कम लागत में कृषि का उत्पादन बढ़ाना व दूसरा युवाओं को कृषि व्यवसाय की तरफ आकर्षित करना है। उन्होंने बताया कि जलवायु परिवर्तन किसानों व वैज्ञानिकों के लिए एक चिंता का विषय बन गया है। जलवायु परिवर्तन अब ग्लोबल वार्मिंग तक सीमित नही रहा, इसके मौसम में आने वाले अप्रत्याशित बदलाव जैसे आंधी, तूफान, सुखापन, बाढ़ इत्यादि शामिल है। असमय तापमान का बढ़ना कृषि उत्पादन में प्रभाव डालता है। इसलिए जलवायु परिवर्तन की चुनौतियों से निपटने के लिए अनुकूल रणनीतियों जैसे कि बढ़ते तापमान व सूखापन के अनुकूल किस्में, मिट्टी की नमी का संरक्षण, पानी की उपलब्धता, रोग-रहित किस्में, फसल विविधिकरण, मौसम का भविष्य आकंलन, टिकाऊ फसल उत्पादन प्रबंधन को अपनाने की आवश्यकता है। उन्होंने बताया कि हरियाणा कृषि विश्वविद्यालय वैज्ञानिकों व नई तकनीकों से कृषि उत्पादन व उत्पादकता बढ़ाने के लिए प्रतिबध है। इससे पूर्व मुख्यातिथि द्वारा कृषि संबंधित प्रदर्शनी का अवलोकन किया गया।

इस सम्मेलन में डॉ. एसके पाहुजा ने आए हुए अतिथियों का स्वागत किया। मंच पर उपस्थित जर्मनी से प्रो. एंड्रयू बॉर्नर, कनाडा से प्रो. रविंद्र छिब्बर ने भी व्याख्यान दिए। इस अवसर पर सम्मलेन में प्रस्तुत होने वाले शोध पत्रों की पुस्तिका, अनुसंधान पुस्तिका व ह्याकृषि महाविद्यालय-एक नजर मेंह्व, पुस्तिका का भी विमोचन किया। अंत में स्नातकोत्तर अधिष्ठाता डॉ. केडी शर्मा ने उपस्थित अतिथिगणों का धन्यवाद ज्ञापित किया।

जलवायु परिवर्तन से कृषि के साथ आम-आदमी भी प्रभावित : प्रो. काम्बोज

जर्मनी के वैज्ञानिक डॉ. मेनफेर्ड ने कहा कि कृषि शोध को लेकर दूरदर्शी विजन बनाने की जरूरत है

पाठकपक्ष न्यूज

हिसार, 20 फरवरी : चौधरी चरण सिंह हरियाणा कृषि विश्वविद्यालय में ''जलवायु परिवर्तन के दौर में कृषि से खाद्य सुरक्षा और स्थिरता'' विषय पर 3 दिवसीय अंतरराष्ट्रीय सम्मेलन का गत रविवार को समापन हुआ। इस अवसर पर मुख्यातिथि विश्वविद्यालय के कुलपति प्रो. बी.आर काम्बोज रहे व विशिष्ट अतिथि आईसी एंड सीसी जर्मनी के एमडी डॉ. मेनफेर्ड कर्न मौजूद रहे।

कुलपति प्रो. बी.आर काम्बोज ने बताया कि जलवायु परिवर्तन किसानों की आय व खाद्यान्न उत्पादन को सीधा प्रभावित कर रहा है, जिसका असर आम-आदमी पर भी पड़ने लगा है। जलवायु परिवर्तन के दुष्प्रभावों से निपटने के लिए विश्वविद्यालय के वैज्ञानिक लगातार ऐसी किस्में विकसित कर रहे हैं, जो तापरोधी, रोगरोधी व कम जलापूर्ति पर भी पोषण से भरपूर व अधिक पैदावार देने में सक्षम हैं, जिसमें हाल ही में विकसित गेहूं, मक्का, गन्ना, राया, बॉयोफोर्टीफाइड बाजरा, ज्वार, जई, मटर, चना व फाबाबीन की किस्में शामिल है। जलवायु परिवर्तन के दुष्प्रभावों से निपटने के लिए व भूमि की उर्वरा शक्ति को बनाए रखने के लिए मृदा के ऑर्गेनिक कार्बन को बढ़ाना, फसल अवशेषों को जलाने की बजाय खेत में ही मिलाना, फसल विविधिकरण अपना, क्लाईमेट स्मार्ट तकनीक जिसमें टपका सिंचाई, फव्वारा सिंचाई, प्रिशिजन खेती, आर्टीफिशियल इंटेलिजेंस का उपयोग, लेजर लेवलिंग, जीरो टिलेज व ड्रोन का इस्तेमाल भी शामिल है। जलवायु परिवर्तन से दुष्प्रभाव से बचने के लिए हमें प्राकृतिक संसाधनों के विवेकपूर्ण इस्तेमाल जिसमें कृषि एवं पशुपालन के संदर्भ में उत्पादकता के बनाए रखने हेतु व कृषि क्षेत्र में आर्थिक सुरक्षा को बनाए रखने हेतु एकीकृत कृषि प्रणाली को अपनाना होगा।

आईसी एंड सीसी जर्मनी के एमडी डॉ. मेनफेर्ड कर्न ने बताया कि कृषि विज्ञान, सभी विज्ञान शाखाओ की मदर है। पिछले वर्षों के मुकाबले भारत में कृषि शोध के क्षेत्र में सुविधाएं काफी बढ़ी है। कृषि शोध को लेकर दूरदर्शी विजन बनाने की जरूरत है। इस सम्मेलन में अगले 50 वर्षों में कृषि शोध के लिए योजनाएं बनाने में मदद मिलेगी। ऐसी कृषि पद्धतियां अपनाने की जरूरत है, जिनसे प्राकृतिक संसाधनों का संरक्षण करने में मदद मिले। गुणवत्तापूर्ण बीज की उपलब्धता खाद्यान्न व चारे की सुरक्षा व स्थिरता के लिए बेहद जरूरी है। ऐसे सम्मेलन में भाग लेने से शोध छात्रों को नैतिकता व ईमानदारी के साथ किसानों के हित में काम करने की प्रेरणा मिलती है।

सम्मेलन में अनुसंधान निदेशक डॉ. जीतराम शर्मा ने अतिथियों का स्वागत किया। डॉ. एसके पाहुजा ने सम्मेलन की विस्तृत रिपोर्ट प्रस्तुत की। इस अवसर पर सम्मलेन में प्रस्तुत होने वाले शोध पत्रों को विशेषज्ञों की कमेटी द्वारा मूल्यांकन के आधार पर वोमेंटो व प्रशस्ति-पत्र प्रदान किए। अंत में स्नातकोत्तर अधिष्ठाता डॉ. केडी शर्मा ने उपस्थित अतिथिगणों का धन्यवाद ज्ञापित किया।

अंतरराष्ट्रीय सम्मेलन : हकृवि में आयोजित कल्चरल ईव में विदेशी मेहमानों ने देशी गानों पर लगाए ठुमके

हरियाणा कृषि विश्वविद्यालय में आयोजित अंतरराष्ट्रीय सम्मेलन में 'जलवायु परिवर्तन के दौर में कृषि से खाद्य सुरक्षा और स्थिरता' विषय पर मंथन चल रहा है, जिसमें विदेशों से आए वैज्ञानिकों को भारतीय संस्कृति से रूबरू करवाने के लिए कृषि महाविद्यालय के ओडिटोरियम में कल्चरल इवी कार्यक्रम का आयोजन हुआ। सांस्कृतिक कार्यक्रम में विदेशी मेहमानों में जर्मनी के एंड्रयास बॉर्नर व डॉ. मेनफेर्ड, कनाडा के प्रो. रविंद्र छिब्बर, स्वीडन की डॉ. मोनिका बागा, पौलैंड के डॉ. लुकार्ज, आस्ट्रेलिया के डॉ. सूर्याकांत, डॉ. ए.के जोशी, अमेरिका के डॉ. अशोक धवन सहित अन्य वैज्ञानिकों ने पंजाबी गाने ढोल जगीरो दा व देशी गानों पर जमकर ठुमके लगाए, जिस पर तालियों की गड़गड़ाहट के साथ उपस्थित प्रतिभागियों ने वन्स मोर-वन्स मोर चिल्लाकर कार्यक्रम का लुत्फ उठाया। विश्वविद्यालय और हरियाणा कला परिषद के संयुक्त रूप से कलाकारों ने महाशिवरात्रि पर्व पर शिव स्तुति कर कार्यक्रम की शुरुआत की, जिसमें हरियाणा कला परिषद के कलाकार संजय सेठी ने सर्वप्रथम शिव नृत्य कर सभी का मन-मोह लिया। कलाकारों ने कत्थक, सूफी, भंगड़ा, फॉक इंडियन डांस, रागनी की बेहतरीन प्रस्तुतियां देकर पंजाब, राजस्थान, गुजरात व हरियाणा की संस्कृति से विदेशी मेहमानों से रूबरू करवाया। सांस्कृतिक कार्यक्रम में आकर्षण का केंद्र भंगड़ा, राजस्थानी व सेमी क्लासिकल डांस रहे।

विद्यार्थी कॅरिअर के लिए ज्ञान के साथ व्यक्तित्व पर दें ध्यानः वीसी

हिसार। विद्यार्थियों को अपने कॅरिअर के निर्माण के लिए ज्ञान के साथ व्यक्तित्व विकास पर भी ध्यान देना चाहिए। इसके लिए उन्हें शैक्षणिक के साथ सहशैक्षणिक गतिविधियों में बढ़-चढ़कर भाग लेना चाहिए।

यह विचार चौधरी चरण सिंह हरियाणा कृषि विश्वविद्यालय के कुलपति प्रो. बीआर काम्बोज ने कहे। वे शनिवार विश्वविद्यालय के कृषि महाविद्यालय में शैक्षिक सत्र 2022-23 में दाखिला पाने वाले नवांगतुक विद्यार्थियों के लिए आयोजित ओरिएंटेशन कार्यक्रम में बतौर मुख्यातिथि बोल रहे थे। प्रो. काम्बोज ने विद्यार्थियों से अपने चहुंमुखी विकास के लिए शिक्षा के साथ खेल व सांस्कृतिक गतिविधियों में बढ़-चढ़कर भाग लेने का आह्वान किया। अधिष्ठाता डॉ. एस.के. पाहुजा, डॉ. मुकेश सैनी, डॉ. पवन कुमार, डॉ. अनिल कुमार वत्स और डॉ. संजय एलावाडी आदि थे।

विद्यार्थी करियर निर्माण के लिए ज्ञान के साथ व्यक्तित्व विकास पर दें ध्यान : कुलपति काम्बोज

कृषि महाविद्यालय में ओरिएंटेशन कार्यक्रम आयोजित

दीप प्रज्वलित कर कार्यक्रम का शुभारंभ करते विश्वविद्यालय के कुलपति प्रो. बी.आर. काम्बोज।

हिसार, 17 सितम्बर (ब्यूरो): विद्यार्थियों को अपने करियर निर्माण के लिए ज्ञान के साथ व्यक्तित्व विकास पर भी ध्यान देना चाहिए। इसके लिए उन्हे शैक्षणिक के साथ सहशैक्षणिक गतिविधियों में बढ़ चढ़कर भाग लेना चाहिए। यह विचार चौधरी चरण सिंह हरियाणा कृषि विश्वविद्यालय के कुलपति प्रो. बी.आर. काम्बोज ने कहे। वे आज विश्वविद्यालय के कृषि महाविद्यालय में शैक्षिक सत्र 2022-23 में दाखिला पाने वाले नवांगतुक विद्यार्थियों के लिए आयोजित ओरिएंटेशन कार्यक्रम में बतौर मुख्यातिथि बोल रहे थे।

प्रो. काम्बोज ने कहा शिक्षा से केवल ज्ञान का विकास होता है लेकिन इस ज्ञान को प्रदर्शित करने के लिए व्यक्तित्व विकास बहुत जरूरी है। उन्होंने विद्यार्थियों से अपने चहुंमुखी विकास के लिए शिक्षा के साथ खेल व सांस्कृतिक गतिविधियों में बढ़ चढ़कर भाग लेने का आह्वान किया। उन्होंने कहा आज चुनौतियों को अवसर में बदलने का समय है। विद्यार्थियों को इसका लाभ उठाना चाहिए और समाज व देश के निर्माण में अपना योगदान देना चाहिए।

कृषि महाविद्यालय के अधिष्ठाता डॉ. एस.के. पाहुजा ने नवांगतुक विद्यार्थियों के विश्वविद्यालय में पदार्पण करने पर स्वागत किया।

इस अवसर पर सभी विद्यार्थियों ने मंच पर जाकर अपना संक्षिप्त परिचय दिया जबकि महाविद्यालय के सभी विभागाध्यक्षों ने अपने-अपने विभाग के बारे में विस्तारपूर्वक जानकारी दी।

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