

डॉ सीमा जग्गी
सहायक महानिदेशक (मानव संसाधन विकास)

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To,

1. Directors of ICAR Institutes
2. Vice Chancellors of Agricultural Universities (AUs-comprising of SAUs/CAU/ICAR DUs/CUs having faculty of Agriculture)

Subject: Organization of Summer/Winter Schools and Short Courses - Inviting Proposals for the Year 2022-23.

Sir/Madam,

As the HRD initiative, the Council supports the organization of Summer/Winter Schools and Short Courses in different disciplines of agriculture and allied sciences in Agricultural Universities (AUs) and ICAR Institutes. The main objective of Summer/Winter School and Short Course is to provide an opportunity to teachers, research workers and specialists working in AUs and ICAR Institutes to update their knowledge and skills in order to keep abreast with the latest developments in the specialized/emerging areas of agricultural and allied sciences. These Summer/Winter Schools and Short Courses also cover specialized new techniques, research methodology and teaching methods and materials.

For the conduct of Summer/Winter Schools and Short Courses, availability of expertise, good laboratory/experimental facilities, adequate number of senior faculty members and research base in the concerned field is necessary. Accordingly, proposals are invited on sharply focused topic of inter-disciplinary nature within the broad disciplinary framework.

Applicants from ICAR and AU-System need to send their proposals online through CBP Vortal of ICAR accessible through <http://cbp.icar.gov.in>. To submit proposals, follow the Guidelines for Summer/Winter School and Short Course given at the homepage of the CBP Vortal. The last date of submitting the proposal online is **June 18, 2022**.

Further, applicants need to download signed and approved copy of proposal submitted online on the CBP Vortal and send it through email to adg.hrd@icar.gov.in so as to reach this office latest by **June 25, 2022**. It may be noted that a proposal may have one Course Director and maximum of two Co-Directors.

For consideration of the proposals, please ensure that the statement of expenditure (ICAR Institute)/audit utilization of all the previous such training programmes conducted by your organization have been submitted to the ICAR.

Yours faithfully,

(Seema Jaggi)

**AGRICULTURAL EDUCATION DIVISION
INDIAN COUNCIL OF AGRICULTURAL RESEARCH, NEW DELHI**

**Proforma for Submitting Proposal for Organization of Summer/Winter School and Short Courses
in Frontier and Specialized Areas of Agriculture and Allied Sciences
(2022-23)**

1. Topic of Summer/Winter School and Short Course.
2. Serial number of suggestive topic/subject area in which the topic falls:
3. Venue with full postal/e-mail address and office phone/fax numbers:
4. Tentative dates (From – to):
5. Eligibility qualification for the participants of the Training programme
 - i) Master's Degree and
 - ii) Working not below the rank of Assistant Professor and equivalent in the concerned subject under Agricultural University/ICAR Institute.
6. Information regarding proposed Director of Summer/Winter School and Short Courses, (enclose bio-data clearly bringing out the specific qualification, experience and scientific contribution of the Course Coordinator in the proposed topic):
7. Faculty strength in Department (Assistant Professor, Associate Professor and equivalent):
8. Information regarding other academic staff of the host Institute who are likely to be used as resource persons:
9. Specific facilities available for conducting the Summer/Winter School and Short Courses such as laboratory equipments/instruments, research farm, library, classroom guesthouse etc.:
10. Programmes/Projects and achievements in the area of special topic proposed for Summer/Winter School and Short Courses:
11. Schedule of daily lectures/practical topics to be covered and name of the faculty proposed to be engaged during the SWS/Short Course:

S.No.	Date/Day	Topic of lecture/ Practical	Name and Designation of Speaker

12. Name of the Summer/Winter School and Short Courses organized, if any during the last three years, Whether UC/AUC was sent:
13. Signature of the Director of the Summer/Winter School and Short Courses (With Official Seal):
14. Remark and recommendation by the head of the host institution for organization of the Summer/Winter School and Short Courses:
15. Signature of the Head of the Institution (With Official Seal):

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Suggestive List of Topics for ICAR's Summer/Winter School and Short Course for the Year 2022-23

S.No	Topic/Subject Area	S.No	Topic/Subject Area
1.	Advances in micro-irrigation for improving water use efficiency and productivity	34.	Molecular mapping of genomes and genes/QTL
2.	Advances in molecular epidemiology	35.	Nano-technology and plant disease management
3.	Agri-business, market intelligence and block chain	36.	Pest risk analysis research as support to domestic quarantine system
4.	Advances in fish health management for enhancing fish productivity	37.	Phenotyping and phenomics in agriculture
5.	Agro-forestry options for livelihood and diversification	38.	Physiological approaches to phytoremediation: Advances, impact and prospects
6.	Approaches for doubling farmer's income	39.	Power generation from new and renewable energy sources
7.	New extension education ARYA, Farmers FIRST and MGMT	40.	Processing value addition and waste utilization technologies for natural fibres
8.	Antimicrobial resistance to antibiotics in animals and its impact on human health	41.	Recent development in conservation technology in animal genetic resources
9.	Bio processing/ food processing / packaging/ product marketing	42.	Recent developments in organic production systems and natural farming
10.	Bio-fortification of staple food crops	43.	Recent developments in climate change and watershed hydrology
11.	Culturing techniques for bio-fertilizers and bio-pesticides	44.	Secondary agriculture
12.	Conservation of indigenous breeds in their respective tracts	45.	Stem cell technologies for clinical application
13.	Climate change adaptation and mitigation strategies through agroforestry system	46.	CAD and CAM for designing of agricultural machinery
14.	Communication and management skills for extensional professionals	47.	Precision agriculture
15.	Emergence of new disease in globalized world	48.	Agricultural education, entrepreneurship and skill development
16.	Enhancing water productivity in scarcity zones	49.	Advanced statistical tools and measures for agriculture research
17.	Entrepreneurship development through agro-processing centers	50.	Bio-safety, bio-security and intellectual property rights related to PGR
18.	Environmental pollutants and food quality standards	51.	Proteomics in crop plants
19.	Exploitation of underutilized vegetables/fruits	52.	Handling next generation sequencing based transcriptome and genome data of plants
20.	Farmers empowerment and entrepreneurial development	53.	Biotechnological and conventional tools for biotic and abiotic stress management
21.	Gender mainstreaming and gender budgeting	54.	Allele mining and bioinformatics in fisheries for trait improvement and conservation
22.	HACCP, value addition and quality standard in fish products	55.	Bio-active compounds from marine organisms: A wealth of novelties and opportunities
23.	Increasing fish production through reservoir fisheries and cage-culture	56.	Remote sensing and GIS
24.	Impact of climate change on production of livestock and poultry	57.	Recent advances in inland and marine fisheries culture and capture technologies
25.	Spatial decision support systems for watershed management	58.	Health foods
26.	Innovations in educational technology	59.	Crop diversification and integrated farming
27.	ICT in agriculture	60.	Advances in renewable energy sources
28.	Renewable energy for environmental protection and energy conservation	61.	Present state of art technology for processing and value addition
29.	Technological advances to minimize post-harvest losses in agriculture	62.	Digital solutions for enhancing agriculture output
30.	Methods and techniques for testing and evaluation of safety of food and agricultural products for human consumptions	63.	Artificial intelligence and machine learning in agriculture
31.	Insecticide resistance management strategies	64.	Big data analysis
32.	Machinery for conservation agriculture and crop residue management.	65.	Smart agriculture and way forward
33.	Molecular approaches in disease diagnostics and vaccines	66.	Conservation agriculture and specialty agriculture

Note: Proposals can also be submitted on other contemporary/ upcoming/ advanced/ cutting edge technologies