



GUIDELINES FOR HUMAN RESOURCE DEVELOPMENT PROGRAMME (2021-22)

**ICAR-National Institute of Abiotic Stress Management
Baramati, Pune, Maharashtra**

Contents

1. About ICAR-NIASM.....	2
2. Human Resource Development Cell.....	2
3. Objectives of HRD Program at ICAR-NIASM	2
4. Opportunities for Undergraduate Students at ICAR-NIASM.....	3
4.1 Application for UG Programme.....	3
4.2 Selection Criteria for UG Programme	4
5. Opportunities for Post-graduate students (Masters, Doctoral and Post-Doctoral fellows).....	4
5.1 Master Degree Research Programme at ICAR-NIASM.....	5
5.1.1. Disciplines for Post-graduate Research (M.Sc/M.Tech/M.Fsc and M.V.Sc students)	5
5.1.2 Application for Post-graduate Research Programme.....	5
5.1.3 Time of Application.....	5
5.1.4 Eligibility of Students	5
5.1.5 Number of Seats.....	6
5.1.6 MoU with Sponsoring Institutes	7
5.1.7 Duration of Research Work	7
5.1.8 Dissertation Fee	7
5.1.9 Allotment of Guide and Constitution of Advisory Committee.....	7
5.1.10 Eligibility of Guide for M.Sc./M.Tech Students.....	8
5.1.11 Thesis Submission	8
5.2. Ph.D. Research Programme at ICAR-NIASM	8
5.2.1 Eligibility of Students	8
5.2.2 Allotment of Guide and Constitution of Advisory Committee.....	10
5.2.3 Eligibility of Guide for guiding PhD Students.....	10
5.2.4 Time of Application.....	11
5.2.5 Duration	11
5.2.6 Research Area.....	11
5.2.7 Thesis Submission	11
5.2.8 Fee Structure and Payment	11
6. PUBLICATION AND IPR ISSUES	12
7. Terms and Conditions for the HRD Programme	13

1. About ICAR-NIASM

ICAR-National Institute of Abiotic Stress Management (NIASM), a Deemed to be University was established on 21 February, 2009 at Malegaon Kh., Baramati to deal with abiotic stressors related to atmosphere, water and soil causing severe losses to crops, livestock and fisheries productivity. Over the past decade, the Institute has played an instrumental role in the field of abiotic stress research in agriculture. The Institute offers unique opportunities for research and training to undergraduate, post-graduate (Masters and Doctoral) and Post-Doctoral Fellows and researchers in the areas of abiotic stress management in crops, horticulture, animal husbandries and fisheries. The research and trainings are coordinated by the Human Resource Development (HRD) Cell of the Institute as per Institute guidelines, which are in full conformity with that of the ICAR and applicable to those institutions where a Memorandum of Understanding (MoU) exists between ICAR Research Institutes and the University/Deemed to be University (DU) seeking collaboration. Such Universities/ DU may be within the National Agricultural Research and Education System (NARES), which includes Agriculture Universities (AU) and DU of ICAR or outside NARES (Central/ State Govt./ Public Sector funded institutions/ State Universities/ PSU/ Autonomous bodies/ Statutory Corporations/ Private Universities or Institutions).

2. Human Resource Development Cell

The human resource development activities at NIASM are administered by HRD Cell of the Institute. There is a **Human Resource Development Committee** consisting of all Heads of the Schools as members, one of them being nominated as Chairman by the Director, and an HRD Coordinator (a scientist of the Institute nominated by the Director), who acts as Member Secretary of the Committee. The term of the Coordinator is for three years, which may be extended by the competent authority.

3. Objectives of HRD Program at ICAR-NIASM

The objectives of HRD programme are to develop and strengthen the human resources for academic and research excellence related abiotic stress management in agricultural crops/livestock/ fisheries in India. The program provides an excellent opportunity for students to work in the emerging areas of research related to abiotic stress management in their Post Graduate /Doctoral /Post-Doctoral programme, guided by leading scientists of ICAR-NIASM actively engaged in research on management of abiotic stresses. Researchers have the liberty to use the data generated during the work done by them for submission of Masters/Doctoral thesis and Post-Doctoral Reports to a recognized University/Funding Agency, respectively as per terms and conditions, laid down in this document and those agreed upon with the funding agencies.

4. Opportunities for Undergraduate Students at ICAR-NIASM

ICAR-NIASM offers various short-term training programmes for undergraduate students such as B.Sc. (Agri/Agri Biotech), B.V.Sc. & AH, B.F.Sc., B.Sc. (Ag) and B.Tech (Biotech/Bioinformatics/Agricultural Engineering) or equivalent course from a recognized college/institute/ university. The UG programme at ICAR-NIASM is primarily aimed to impart the hands-on experience to UG students in frontier research tools and techniques in the area of abiotic stress management. Various types of UG trainings offered along with their eligibility, duration, number of seats, and fee are given in Table 1.

Table 1. UG programmes offered at ICAR-NIASM

Training	Duration	Seats	Eligibility	*Fee (Rs.) + GST, as applicable
Summer Training	21 days	20	Any UG student enrolled in science stream in UGC recognized College/university	5,000
UG Internship	1-6 months	10	UG Final year science students	1) Up to 1 month: 5,000 2) Up to 3 months: 10,000 3) Up to 6 months: 20,000
Part-time Project Work	6 months	15	UG Final year science students	20,000
Skill Development Programme	1 month	10	Any UG student enrolled in science subject in UGC recognized College/university	5,000

*All types of the course fee are non-refundable in nature. No fee will be charged from students from ICAR NARES.

4.1 Application for UG Programme

The UG students desirous to join any of the UG programmes may apply to the HRD Coordinator, NIASM (Email: hrd.niasm@icar.gov.in) in response to the notification issued twice a year tentatively in the months of April and November. Students are advised to check Institute website (www.niam.res.in) regularly for the notification. All the applications for UG programme should be duly forwarded through Head of the Institution where student is pursuing his/her graduate degree. Applications without the endorsement from Head of the institution will be summarily rejected. The candidates applying for UG internship/training programme will pay an amount of Rs. 100/- as non-refundable application fee.

4.2 Selection Criteria for UG Programme

The selection criteria for the Four UG Programs will be as follow:

a- Summer Training

- a. Preference will be given to students in the final year of their graduate degree programme followed by the students of subsequent years.
- b. The score/marks in the class 12th board examination (75% weightage) and class 10th board examination (25% weightage) will form the basis to prepare the merit list.

b- UG Internship

- a. For UG Internship the first preference will be given to the students from NARES System.
- b. Among NARES students, the preference will be given to those trainees who apply for full term internship to be carried out at ICAR-NIASM.
- c. Among the similarly placed students, the score/marks in the class 12th board examination (75% weightage) and class 10th board examination (25% weightage) will form the basis to prepare the merit list.

c- Part time Project

- a. Students and professors may interact with concerned scientists at NIASM for development of project proposal.
- b. For selection, relevance of the project to ongoing research programmes and mandate of the institute will be given due consideration.
- c. Those who join with financial support of public or private agencies would be given preference.
- d. Upon approval of Competent Authority, projects may be executed as per the norms of ICAR particularly with respect to IPR issues, etc.

d- Skill Development Program

- a. First preference will be given to the students from NARES system followed by those who want to pursue this course for meeting their university requirements for completion of academic curriculum.
- b. The score/marks in the class 12th board examination (75% weightage) and class 10th board examination (25% weightage) will form the basis to prepare the merit list.

5. Opportunities for Post-graduate Students (Masters, Doctoral and Post-Doctoral fellows)

ICAR-NIASM offers unique opportunity to post-graduate students (Masters and Doctoral students) registered at a recognized college/Institute/university to carry part/full-time research

work. Post-doctoral fellows having their own fellowships are also allowed to join under the mentorship of proficient scientists of ICAR-NAISM.

5.1 Master Degree Research Programme at ICAR-NIASM

5.1.1. Disciplines for Post-graduate Research (M.Sc./M.Tech/M.Fsc and M.V.Sc students)

ICAR-NIASM offers HRD research and training in the disciplines of Agronomy, Agricultural Engineering, Agricultural Meteorology, Animal Biotechnology, Bioinformatics, Economic Botany, Entomology, Environmental Sciences, Fisheries, Genetics and Plant Breeding, Genomics, Microbiology, Plant Biochemistry, Plant Biotechnology, Veterinary Pathology, Molecular Breeding, Plant Pathology, Vegetable Science, Livestock production and Management, Animal Nutrition, Plant Physiology, Soil Microbiology, Soil Science, and related Life/Engineering/Physical Science disciplines covering various aspects of research on abiotic stress management.

5.1.2 Application for Post-graduate Research Programme

The candidates fulfilling the terms and conditions may apply to the **HRD Coordinator, ICAR-NIASM, Baramati, 413115, Pune, Maharashtra (Email: hrd.niasm@icar.gov.in)** as per the notification on the ICAR-NIASM website with their complete bio-data indicating discipline, subject preference and copies of the relevant documents i.e., certificates of date of birth, high school, 10+2, graduation and post-graduation degrees. The candidates applying for M.Sc./M.Tech./equivalent degree will pay an amount of Rs. 100/- as application fee. The application of the candidates desirous of seeking admission should be forwarded through the proper channel. The Post-Doc candidates may consult the potential mentors in the institute in advance before application and follow the guidelines/rules of funding agency for the same.

5.1.3 Time of Application

The students registered for M.Sc./M.Tech. equivalent degree in recognized educational organizations are allowed to undertake research in two sessions during **July-December (Session-1) and January-June (Session II)** every year, for which the applications are accepted during **April-May** and **October-November**, respectively as per the notification at ICAR-NIASM official website.

The Post-Doc candidates can apply as and when the positions are announced by the funding agencies.

5.1.4 Eligibility of Students

The students registered in M.Sc./M.Tech./equivalent degree programme of State Agricultural Universities (SAUs) and the UGC recognized Universities/Deemed Universities/

Organizations recognized by Technical Education Councils /equivalent recognized organizations offering PG courses are eligible for the research and training. Selection of students is based on academic merit and relevance of research interest to the mandate of the institutes.

5.1.5 Number of Seats

The number of seats available in each session is decided as per the requirement and availability of research guides at ICAR-NIASM, Baramati. Tentative number of seats are given in Table 2.

Table 2. Master Degree programmes at ICAR-NIASM.

Name of the Programme	Duration	Tentative Seats	Eligibility	*Fee for the programme
Master Degree Research	Minimum 3 months or more	30	Student enrolled for Master degree programme in the subjects mentioned in section 5.1.1. in State Agricultural Universities (SAUs) and the UGC recognized Universities/Deemed Universities/ Organizations recognized by Technical Education Councils /equivalent recognized organizations.	<ul style="list-style-type: none"> • Rs 20,000/- for research work of up to 3 months leading to dissertation. • Rs 30,000/- for research work exceeding 3 months up to 6 months. • Fee will be charged @ 30,000 per semester after six months.
Master degree Training	Up to 3 months	20	Student enrolled for Master degree programme in the subjects mentioned in section 5.1.1. in State Agricultural Universities (SAUs) and the UGC recognized Universities/Deemed Universities/ Organizations recognized by Technical Education Councils	Rs 10,000 for training of up to 3 months.

			/equivalent recognized organizations.	
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* The course fee is non-refundable in nature. There will be no fee for the students from NARES system but if a student is in receipt of fellowship of ICAR/CSIR/DBT or equivalent national fellowship, he/she will have to transfer the contingency grant to ICAR-NIASM if major part of his master research is carried at ICAR-NIASM.

5.1.6 MoU with Sponsoring Institutes

The ICAR-NIASM may enter into a MoU with the concerned Institutes/universities for registration of the PG students.

5.1.7 Duration of Research Work

Each student enrolled in this program will work for a minimum period of 3 months in the Institute.

5.1.8 Fee for Masters Research/Training

As per ICAR HRD guidelines, a fee of Rs 20,000/- for research/training up to 3 months and Rs. 30,000/- for a period up to 6 months shall be charged from the selected candidates. However, there is no fee for the students from NARES system i.e., SAUs, DUs of agriculture, CAUs, etc. This is subjected to change based on the guidelines updated by the ICAR. A fee of Rs 10,000 will be charged from Master degree students who join ICAR-NIASM for training not exceeding 3 months not leading to any dissertation.

5.1.9 Allotment of Guide and Constitution of Advisory Committee

- 1) At the commencement of each session, the HRD Coordinator shall issue a general notice informing all scientists of ICAR-NIASM about the willingness to guide students in the session. The eligible scientists interested to guide students shall convey their willingness to the HRD cell through their respective Heads of Schools within the specified period.
- 2) For M.Sc./equivalent degree, guides will be decided by the Director, ICAR-NIASM based on recommendation of HRD Cell. The student's preference will be given due weightage.
- 3) Each eligible Scientist, Senior Scientist and Principal Scientist can be allotted one, two and three students in each session based on number of applications received. In case of more number of students than the interested/eligible guides, allotment of additional students will be decided by the Director, NIASM. Priority will be given to subject specialization followed by seniority of the scientist and preference of the student.
- 4) There shall be an Advisory Committee for the student consisting of the Guide (Chairman of the Committee), primarily as per the norms of the collaborating University/Institute. In the absence such norms, the committee should include one scientist from the same discipline and

another from a related discipline (as deemed fit for the research work) from NIASM. In case, a scientist from the same discipline is not available, the two scientists from the related area of research will be nominated as advisory committee members by the Director. One teacher from the sponsoring institute may also be a member of the Committee, if required. The Advisory Committee proposed by the concerned scientist will be communicated to HRD for the final approval of Director.

- 5) After discussion with the student, the Guide will finalize the topic and work plan for the dissertation work, which will be communicated to the HRD Committee within a specified period.

5.1.10 Eligibility of Guide for M.Sc./M.Tech Students

Scientists with Ph.D. degree with two years of service depending on the area of their expertise shall be eligible to guide students. The scientists who are yet to obtain Ph.D. degree shall be eligible to guide students only after completion of five years of service and should have at least three research papers in reputed scientific journals.

5.1.11 Thesis Submission

After completion of research work, the student shall present the findings before the Advisory Committee; the thesis shall be submitted only after incorporating the suggestions of the Committee. Each thesis shall have a certificate signed by all members of the Advisory Committee in a prescribed *proforma*. Students shall obtain a 'No Dues Certificate' in the prescribed *proforma* available from the HRD Cell and submit to the HRD Coordinator. A certificate of thesis submission should be submitted by the guide to the HRD Cell.

5.2. Ph.D. Research Programme at ICAR-NIASM

5.2.1 Eligibility of Students

The doctoral research programme will be available to the candidates with a post-graduate degree from the SAUs/UGC recognized Universities/Deemed Universities/Organizations recognized by Technical Education Councils /equivalent recognized organizations. Doctoral research programme will be offered in the subjects mentioned in the 'Disciplines for HRD' Section (Section 5.1.1) subject to the availability of the research guide at ICAR-NIASM. The other details of doctoral research programme at ICAR-NIASM are summarized in Table-3. The doctoral research programme is offered to the following categories of students:

- a) **Research Associates (RAs) and Senior Research Fellows (SRFs):** Candidates working as RAs and SRFs in the on-going approved research projects at ICAR-NIASM, Baramati, may be permitted to pursue Ph.D. research work, if completed the course work at any recognized University. However, PI of the project with the approval of Director will issue a certificate that the regular research work of the project will not be hampered on account of university formalities to be completed by RA/SRF for the degree programme.

- b) **Award Fellows:** The students who have been awarded fellowship from DBT/DST (eg. INSPIRE/CSIR or any other equivalent organization with due approval of the Director and endorsement of ICAR-NIASM scientist as guide/supervisor can pursue his/her Ph.D. programme from ICAR-NIASM after registration with the university with which ICAR-NIASM has MoU.
- c) **In-service candidates:** In service candidates pursuing Ph.D. degree after completing course work from the university where he/she is registered may be permitted to do research work in ICAR-NIASM as per provisions of ICAR-HRD Guidelines.
- d) **Honorary candidates:** The students who do not have a fellowship but have completed six months course work may be permitted based on academic merit for PhD research. Such students will not have any claim to get a fellowship from the institute.

Table 3. Doctoral Degree Research at ICAR-NIASM

Name of the Programme	Duration	Tentative Seats	Eligibility	*Fee for Doctoral Research Programme
Doctoral Degree Research Programme	Minimum Three months	10	<p>Any students having master degree in one of the subjects mentioned in section 5.1.1 and has already enrolled for Ph.D. degree programme of a recognized university and have completed his course work.</p> <p style="text-align: center;">OR</p> <p>RA/SRFs/YPs working in a approved research project of ICAR-NIASM and meet the requirement as laid in 5.2.1 (a).</p> <p style="text-align: center;">OR</p> <p>Inservice candidates meeting the requirement as laid in 5.2.1 (c)</p>	<ul style="list-style-type: none"> • Rs 20,000/- for research work of up to 3 months leading to dissertation. • Rs 30,000/- for research work exceeding three months up to 6 months. • Fee will be charged @ 30,000 per semester after six months.

* The course fee is non-refundable in nature. There will be no fee for the students from NARES system

5.2.2 Allotment of Guide and Constitution of Advisory Committee

The criterion for allocation of Major Guide/Advisor will primarily be governed by the area of research of the student, area of expertise of the Guide and choice of the students for Guide. Students can go through the profiles of the ICAR-NIASM scientists available on website of the Institute to opt for Guide of his/her choice. There will be an Advisory Committee comprising the Guide (Chairman of the Advisory Committee), at least two scientists from the same discipline and another scientist from a discipline deemed fit for the research work. In case of Co-guide system (as prevalent in some Universities), the Co-guide will be included in the advisory committee. For the SRFs working in a research project in the institute, the PI/Co-PI of the project shall be preferred to guide the student based on eligibility criteria prescribed by University/Institute.

5.2.3 Eligibility of Guide for guiding PhD Students

- a) A scientist having Ph.D. Degree with experience of serving a University/research organization as a scientist for at least five years shall be eligible to guide PhD students. A scientist can guide a maximum of 5 Ph.D. students as Guide/Co-Guide at any given time.
- b) The HRD Committee shall allot students to each guide with the approval of the Director. Each eligible guide shall be allotted maximum of two students in each year or based on number of externally funded research projects which employ RA/SRF/JRF/YP. In case of more number of students than the interested guides, allotment of additional students will be decided by the Director, NIASM. Priority will be given to subject specialization followed by seniority of the scientist.
- c) In case the guide is to retire shortly or transferred, he/she should inform the Head of the Division about the status of research of the students working under him/her. The Head shall bring the matter to the notice of the HRD Committee for necessary action.
- d) In case, the research work is expected to be completed within 6 months of his/her retirement or transfer, the guide shall take the responsibility for submission of the thesis. But if the quantum of research work is likely to take more than 6 months, the student shall be allotted to the next eligible scientists in the Advisory Committee who will be the guide of the student and ensure completion and submission of thesis. However, this needs to be ratified by the concerned University.
- e) A scientist who is to retire within three years shall not be eligible to guide a PhD student, but can be a member of the Advisory Committee. The HRD cell shall nominate a new member in such cases after his /her retirement.

5.2.4 Time of Application

The application by candidates should coincide with announcement of Ph.D. degree programme by the recognized Universities. RA/SRF/JRF/YP associated with ongoing research project can submit application with the approval of concerned Project Investigator of the project.

5.2.5 Duration

Each candidate will be permitted to undertake research in the approved area for up to 3 years only from the date of permission by the Director, ICAR-NIASM. Further extension for 6 months may be granted by the Competent Authority on the request of the student endorsed by the Guide. The students will be required to vacate the hostel at ICAR-NIASM after the permitted time.

5.2.6 Research Area

The proposed area of work, thesis title and the synopsis/outline of work recommended by the Advisory Committee shall be presented before the HRD Cell. The outline of research work recommended by the HRD Cell and approved by the Director will be submitted to the University for registration/approval. The Co-guide from the University shall also be invited to attend the seminar. Synopsis presentation is compulsory before forwarding it to the University for registration.

5.2.7 Thesis Submission

Submission of the thesis will be preceded by pre-submission seminar presentation at the institute and followed by approval by the advisory committee and the Director. The Ph.D. thesis must have certificate duly signed by the members of the Advisory Committee. One copy of the final thesis should be submitted to the Institute Library through HRD Co-coordinator. The students shall take no-dues from the HRD cell prior to thesis submission.

5.2.8 Fee Structure and Payment

- a) Students/ICAR Institute staff registered with AU/DU who intend to carry out research work at ICAR-NIASM are not required to pay any fee except hostel accommodation charges, etc. However, if a student registers with AU/DU after qualifying through competitive mode of ICAR's All India Entrance Examination for Admission to Master's/PhD and is awarded fellowship for pursuing Master's or Doctoral degree programme by any sponsoring institution e.g. ICAR-JRF(PGS)/ICAR-SRF(PGS)/CSIR-UGC-JRF/CSIR-SRF, the contingency grant awarded to the student may be transferred to the institution where major part of the research work shall be carried out and regulated by the provisions contained in the guidelines of sponsoring institution.

- b) The students coming from outside National Agricultural Research and Education System (NARES) shall be uniformly charged a fee of Rs. 20,000/- for training/research/dissertation up to duration of 3 months and @ Rs. 30,000/-per semester for the work exceeding three months; Rs. 10,000/- will be charged for any training/exposure visit for a period upto three months if not leading to dissertation/degree. The fee structure will be reviewed periodically after two years by the AU/DU or the ICAR Institute, as the case may be.
- c) The Honorary Ph.D. Students shall be charged a fee @ Rs. 30,000/-per semester for the work not exceeding 6 months.
- d) Refundable caution money of Rs. 2,000/- shall be uniformly charged from all students undertaking PhD work at ICAR-NIASM, without which their synopsis shall not be forwarded for registration. A refundable caution money of Rs. 1,000/- will be charged from MSc students at the time of joining in the Institute.
- e) The payment should be made through an **A/C payee DD** in favour of “Director, ICAR-NIASM, payable at SBI, Baramati Branch, Baramati, Pune, MH” or **online transfer** to following account:
Name of the Account Holder: ICAR Unit NIASM
Account No: 30862846914
IFSC Code: SBIN0000321
Name of Bank: State Bank of India
Name of Branch: SBI, Baramati

6. PUBLICATION AND IPR ISSUES

- a) **Publication:** The student would invariably be the senior author for the publications arising out of the research work conducted at the AU/DU/Institutes. The names of additional co-authors, depending upon their contribution in the research work may be decided by mutual consent between the student and Major Guide/Advisor. The guide of the students shall be the corresponding author for the publications coming out of the work reported in the thesis/dissertation. A teacher of the sponsoring institute, who is a member of the Advisory Committee, may also be an author. The work carried out by the students cannot be published without knowledge of the guide. Formalities for publication will be followed as per ICAR guidelines.
- b) **Intellectual Property Rights:** The student is expected to protect the Intellectual Property Rights generated or likely to be generated during his/her research work. The IPRs shall rest with ICAR-NIASM where the major part of the research work was carried out by the student. In the event of equal amount of work being carried out at both the sponsoring institute and ICAR Institute, patents/protections/knowledge generated will be shared in proportion as per the ‘ICAR Guidelines for Intellectual Property Management and Technology Transfer/Commercialization’ as amended from time to time.

7. Terms and Conditions for the HRD Programme

- a) The selected candidates will be bound by the rules and regulations of the ICAR-NIASM, Baramati. The Institute reserves the right to cancel the offer of any candidate without prior intimation or showing any reason.
- b) In case of dispute, decision of the Director, ICAR-NIASM shall be final.
- c) The hostel accommodation in ICAR-NIASM shall be subject to availability and at discretion of the Director, ICAR-NIASM. If accommodation is provided, the hostel charges for the six months shall have to be paid in advance at the time of availing the hostel facilities.
- d) The terms and conditions for the trainings are subject to revision and shall be applicable to existing trainees also.
- e) The candidates who have undergone training shall have no claim for employment in the institute just for having been trained at ICAR-NIASM.
- f) Prior permission of the Director, ICAR-NIASM is essential for a scientist for guiding a student or for undertaking any training at the Institute.
- g) Each student/trainee will be issued an ID card valid for the period of stay at ICAR-NIASM.
- h) Minimum attendance of 70% in each quarter is essential to continue the programme.