



भारतीय कृषि सांख्यिकी अनुसन्धान संस्थान
(भा. कृ. अनु. प.)
लाइब्रेरी एवेन्यू, पूसा, नई दिल्ली- (भारत)
INDIAN AGRICULTURAL STATISTICS RESEARCH INSTITUTE
(ICAR)
Library Avenue, Pusa, New Delhi-110012 (India)



उमेश चंदर सूद
निदेशक (कार्यकारी)
U. C. Sud
Director (Acting)

सं.: DIR/IASRI/NAIP/TRAINING/ 1
दिनांक: जनवरी 30, 2014

- प्रेषित : 1. भा.कृ.अ.प. के विभिन्न संस्थानों के निदेशक /राष्ट्रीय अनुसंधान केन्द्रों/परियोजना
2. राज्यों के कृषि विश्वविद्यालयों के उपकुलपति/अध्यक्ष/ निदेशक (अनुसंधान)

विषय: एन ए आई पी अनुसन्धान परियोजना "Establishment of National Agricultural Bioinformatics Grid for ICAR" के तत्वधान में आयोजित राष्ट्रीय प्रशिक्षण कार्यक्रम "एन जी एस आंकड़ा विश्लेषण के संगणक पहलू : प्रयोगशाला से कार्य क्षेत्र का सफ़र"

आदरणीय महोदय/महोदया,

भारतीय कृषि सांख्यिकी अनुसंधान संस्थान द्वारा 04-13 मार्च, 2014 के दौरान "एन जी एस आंकड़ा विश्लेषण के संगणक पहलू: प्रयोगशाला से कार्य क्षेत्र का सफ़र" पर, Ome Research Facility (<http://www.omersearchfacility.in/>), Department of Animal Biotechnology, Anand Agricultural University, Anand, Gujarat में राष्ट्रीय प्रशिक्षण कार्यक्रम चलाया जाएगा। यह कार्यक्रम राष्ट्र के जैव प्रौद्योगिकी अनुसन्धान के जैवसूचना मानव संसाधन विकास सम्बन्धी "क्रांतिक द्रव्यमान" के आवश्यकता पूर्ति हेतु विशेष तौर पर तैयार किया गया है। इस प्रशिक्षण में जीनोम आंकड़ों का कृषि उत्पादकता से सह-सम्बन्ध के आधार को स्थापित करते हुए अत्याधुनिक जैवसूचना तकनीकी की भूमिका को दर्शाया जायेगा ताकि फसल, पालतू पशु, मछलियों, एवं सूक्ष्म जीवाणुओं से कृषि उत्पादकता को बढ़ाया जा सके।

आप से अनुरोध है कि कृपया आपके संस्थान/संगठन/विश्वविद्यालय के एक या दो वैज्ञानिक जो इस तरह के कार्य कर रहे हैं तथा संलग्न विवरणिका में वर्णित प्रशिक्षण कार्यक्रम के लिये निर्धारित योग्यता को पूर्ण करते हैं, को इस कार्यक्रम के लिए नामित करें। इस प्रशिक्षण कार्यक्रम के लिये 20 प्रशिक्षणार्थियों का चयन किया जाएगा। प्रशिक्षणार्थियों को यात्रा भत्ता (रेल वातानुकूलित शयनयान- द्वितीय श्रेणी तक सीमित) एवं रहने और खाने की सुविधाओं का खर्च परियोजना मद से वहन किया जायेगा।

प्रशिक्षणार्थियों का नामांकन निर्धारित आवेदन पत्र में भरकर निम्न व्यक्तियों को 11 February, 2014 तक भेजने की कष्ट करें :

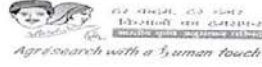
1. डॉ. अनिल राय, प्रभाग प्रधान
कृषि जैवसूचना केंद्र
भारतीय कृषि सांख्यिकी अनुसंधान संस्थान
लाइब्रेरी एवेन्यू, पूसा, नई दिल्ली-110012
ई-मेल: anilrai@iasri.res.in; anilrai64@gmail.com
2. डॉ. दिनेश कुमार, वरिष्ठ बैज्ञानिक (जैव प्रौद्योगिकी) एवं पाठ्यक्रम निदेशक, कृषि जैवसूचना केंद्र
भारतीय कृषि सांख्यिकी अनुसंधान संस्थान
लाइब्रेरी एवेन्यू, पूसा, नई दिल्ली-110012
ई-मेल: dineshkumarbhu@gmail.com
मोबाइल: +91-8373926300

प्रतिलिपि सम्प्रेषण:

नेशनल डायरेक्टर, एन ए आई पी अनुसन्धान परियोजना के सादर सूचनार्थ
नेशनल कोऑर्डिनेटर I, एन ए आई पी अनुसन्धान परियोजना के सादर सूचनार्थ

भुवदीय,

(उमेश चंदर सूद)



भारतीय कृषि सांख्यिकी अनुसन्धान संस्थान
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उमेश चंदर सूद
निदेशक (कार्यकारी)
U. C. Sud
Director (Acting)

No.: DIR/IASRI/NAIP/TRAINING/1
Date: January 30, 2014

To

- (i) Directors of ICAR Institutes/NRCs/Project Directors/Bureaux
- (ii) Vice Chancellors/Deans/Director (Research) of State Agricultural Universities

Subject: Training programme on "Computational aspect for NGS Data Analysis: a sojourn from lab to field" under NAIP funded project "Establishment of National Agricultural Bioinformatics Grid for ICAR"

Dear Sir/Madam,

The NAIP funded project "Establishment of National Agricultural Bioinformatics Grid for ICAR" is organizing a training programme on "Computational aspect for NGS Data Analysis: a sojourn from lab to field" during March 04-13, 2014 at Ome Research Facility (<http://www.omerresearchfacility.in/>), Department of Animal Biotechnology, Anand Agricultural University, Anand, Gujarat. The training programme has been planned with the objective to take participants from NARES in order to generate "critical mass" of bioinformatics HRD to cater need of biotechnological research of the country. This programme is especially customised with contents of state-of art in linking use of genomics data in crop, animal, fish and microbial productivity.

You are requested to kindly nominate one or two personnel of your Institute/ Organization/ University for participating in the training programme. The candidate should fulfil the eligibility criteria as mentioned in the brochure. In all, **20 participants** will be selected for participation in this training programme. The participants will be paid to and fro travel fare for the railway journey restricted to 2nd AC. Free boarding and lodging will be provided to participants during the training.

The nomination of the candidates in the prescribed application form (proforma enclosed with brochure) may please be sent so as to reach by **February 11, 2014** to any one of the following addresses:

1. Dr. Anil Rai, Head
Centre for Agricultural Bioinformatics
Indian Agricultural Statistics Research Institute
Library Avenue, PUSA, New Delhi – 110012
Email: anilrai@iasri.res.in; anilrai64@gmail.com
2. Dr. Dinesh Kumar, Senior Scientist(Biotechnology) & Course Director
Centre for Agricultural Bioinformatics
Indian Agricultural Statistics Research Institute
Library Avenue, PUSA, New Delhi – 110012
Email: dineshkumarbhu@gmail.com
Mobile: +91-8373926300

Yours Sincerely,

(U. C. Sud)

Copy to: National Director (NAIP), ICAR for kind information
National Coordinator, Component 1, ICAR for kind information



Application Form for Admission to Training Programme
(March 4-13, 2014)

1. Name (in block letters):
2. Discipline:
3. Designation and Basic Pay:
4. Date of Birth:
5. Gender (Male/Female):
6. Educational Qualifications:
7. Length of Service:
8. Present Employer's Address:
9. Address for Correspondence:
10. E-mail Address:
11. Telephone Number (Mobile):
12. Level of Knowledge of Statistics:
13. Level of Knowledge of Computers:
14. Participation in Training Programmes During Past One Year (Details may be provided)

Signature of the Applicant with Date

CERTIFICATE

It is to certify that information furnished above is correct .

Signature of the Recommending
Authority along with Seal

Please send the Application form duly filled in through proper channel to any one of the following:

Dr. Anil Rai, Head

Centre for Agricultural Bioinformatics
Indian Agricultural Statistics Research Institute
Library Avenue
PUSA, New Delhi – 110012
Email: anilrai@iasri.res.in
anilrai64@gmail.com

Dr. Dinesh Kumar

Centre for Agricultural Bioinformatics
Indian Agricultural Statistics Research Institute
Library Avenue
PUSA, New Delhi – 110012
Email: dineshkumarbhu@gmail.com
Mobile: +91-8373926300

Dr. Mir Asif Iqubal

Centre for Agricultural Bioinformatics
Indian Agricultural Statistics Research Institute
Library Avenue
PUSA, New Delhi – 110012
Email: asif@iasri.res.in;
jiqubal@gmail.com
Mobile: +91-8860912108

NAIP Funded
National Training Programme on Computational Aspect
for NGS Data Analysis: a sojourn from lab to field

Under the Project
Establishment of
National Agricultural Bioinformatics Grid in ICAR
March 04-13, 2014

Course Directors:

IASRI, New Delhi: Dr. Dinesh Kumar
Dr. Mir Asif Iqubal

AAU, Anand: Dr. Chaitanya G. Joshi



VENUE:

Ome Research Facility
Department of Animal Biotechnology
College of Veterinary Science & Animal Husbandry
Anand Agricultural University
Anand-388001



Department of Animal Biotechnology
College of Veterinary Science &
Animal Husbandry
Anand Agricultural university
Anand-388001
<http://www.omerresearchfacility.in/> <http://www.aau.in/>

Centre for Agricultural Bioinformatics
Indian Agricultural Statistics Research Institute
Library Avenue
PUSA, New Delhi – 110012
<http://nabg.iasri.res.in/cabin/>
<http://iasri.res.in>

Introduction: As agriculture land size is decreasing and we have to feed 1.6 billion population by 2050, the time has come we have to increase the crop, animal and fish productivity by using genomics approach where the big data generated has to be churn to get critical input for genome based selection. This will enable yield with quality improvement as per domestic and global market need. The present training program is being organized with this aim under the NAIP funded project Establishment of National Agricultural Bioinformatics Grid (NABG) in ICAR. The training tailored for researchers whose research involves experiments that generate genomic data. This training is intensive and covers right from basic concepts and methods required for the analysis of high-dimensional genomic data to field applications. Success of genomics based agricultural productivity is critically dependent on linking the genomic data with phenotype in form of association studies along with faster and accurate prediction of breeding values. The genetic gain can be accelerated by using thousands of SNP markers through Genome Wide Association Studies (GWAS). Computational biology has to play a pivotal role right from whole genome sequencing to genomic selection tool.

About Anand: Anand means “Happiness”, “Pleasure”, the Name is true to its meaning as this city has played pivotal role in complete transformation in lives of millions of rural people. Anand is known as the **Milk Capital** of India, due to its contribution in “White Revolution”.

Anand is located on Western Railways (Ahmedabad-Mumbai route) at 74 Km from Ahmedabad and 35 Km from Vadodara. Ahmedabad is also directly connected to Delhi through Air.

About training: As genomics programme targeting increase in crop, animal, fish and microbial productivity is heavily dependent on big data thus this requirement is indispensable supplementing biotechnological research of NARES. This centre is one of the well-recognised research centre of genomics and advanced bioinformatics. The centre is having two high end **Parallel DNA sequencer** (Next Generation Sequencing Machine viz. Ion Torrent and GSFLX 454) along with other state-of-art equipment.

This centre has pride of ICAR’s Niche area of excellence’s “Metagenomic analysis of ruminal microbes” funded by Educational Divisional of ICAR. The training programme is being planned with objective to take participants from NARES to generate “critical mass” of bioinformatics HRD to cater the need of biotechnological research. This training programme will be unique and advantageous as it will start right from the basics of NGS based genomics and transcriptomics data generation to high throughput data analysis such as:

- 1) **Data Generation**
- 2) **Database information**
- 3) **Data Analysis/Quality filtering**
- 4) **Assembly tools (Reference guided and Denovo)**
- 5) **High Performance Computing**
- 6) **Genome Annotation (Prokaryote and Eukaryote)**
- 7) **SNP Detection, SNP selection models**
- 8) **RNAseq Analysis**
- 9) **Metagenomics**
- 10) **Protein Modelling**
- 11) **IP informatics**

Eligibility: The candidates must possess Master’s degree in any discipline of Agricultural/ Allied Sciences/Veterinary Sciences/Fisheries etc. He/she should be working (position not below the rank of Scientist/Assistant Professor) in NARES which includes ICAR Institutes/ State Agricultural Universities/Directorates/ NRCs/ KVKs/ Central Agricultural Universities/ Faculty of Agriculture under Central Universities, etc.

General Information: The participants will be paid to and fro travel fare for the rail journey restricted to 2nd Class AC only. Free boarding and lodging will be provided to participants during the training. The participants are advised not to bring family members with them. The number of participants admitted to the programme will be **20 (Twenty)**. Last date of receipt of the application is **11 February, 2014**. In order to make effective learning participants are requested to bring 64 bit laptop with UBUNTU operating system, if possible.

**Application form for Admission to Training Programme
(March 04-13, 2014)**

1.	Name (in block letters)	:	
2.	Discipline	:	
3.	Designation and Basic Pay	:	
4.	Date of Birth		
5.	Gender (Male/Female)		
6.	Educational Qualifications		
7.	Length of Service	:	
8.	Present Employer's Address	:	
9.	Address for Correspondence	:	
10.	E-mail Address	:	
11.	Telephone Number (Mobile)	:	
12.	Level of Knowledge of Statistics	:	
13.	Level of Knowledge of Computers	:	
14.	Participation in Training Programmes During Past One Year (Details may be provided)	:	
	Signature of the Applicant with Date		
CERTIFICATE			
It is certified that information furnished above is correct.			
Signature of recommending authority with date along with seal			