भारतीय कृषि सांख्यिकी अनुसंधान संस्थान
कृषि जैवसूचना केन्द्र (केबिन प्रभाग)
(भा0 कृ0 अ0 प0)
लायब्रेरी एवेन्यू, नई दिल्ली – 110012

INDIAN AGRICULTURAL STATISTICS RESEARCH INSTITUTE
Centre for Agricultural Bioinformatics (CABin)
(I.C.A.R.)
Library Avenue, New Delhi-110012

डा0 अनिल राय
प्रधान प्रभाग
Dr. Anil Rai
Head (CABin)

No.PS/CABin/ANVAYA/5/11
Dated, the 7th May, 2011

Subject: Invitation for the training programme on *"Computational Genome Analysis using ANVAYA"* during June 22-24, 2011.

Dear Sir,

This institute is organizing a training programme on the above subject in collaboration with C-DAC, Pune during June 22-24, 2011, under NAIP Component-I sub-project, *"Establishment of National Agricultural Bioinformatics Grid (NABG)"* in ICAR. Detailed brochure of this course has been enclosed for your reference. You are requested to nominate one or two participants, preferably scientific personnel of your Institute/Organization/University for participating in this training programme. In case, you need any clarification, please contact me or Sh. S.B. Lal, Scientist, Course Coordinator, Centre of Agricultural Bioinformatics (sblall@iasri.res.in).

With regards,

Yours sincerely,

(Anil Rai)

To
All ICAR Instts/SAUs

E-mail : anilrai@iasri.res.in
GRAMS: AGRIRESTA
FAX :011-25841564

Residence : 27048796
Mob : 09868500341
Office : 2584722-25/4334

Indian Agricultural Statistics Research Institute, New Delhi

Bioinformatics Training Programme
on
Computational Genome Analysis using ANVAYA
June 22 – 24. 2011

Research Institute : _____

Name of the Applicant : _____

Designation : _____

Official Address : _____
_____
_____

Telephone No. : _____

Mobile : _____

Email Address : _____

Bioinformatics Related Experience : _____
_____
_____

Expectation from Training : _____
_____
_____

Signature of Applicant

Forwarding from Competent Authority

INSTRUCTIONS TO CANDIDATE
- Complete application should be emailed to nabg@iasri.res.in or sblall@iasri.res.in
- Applications should be submitted through proper channel
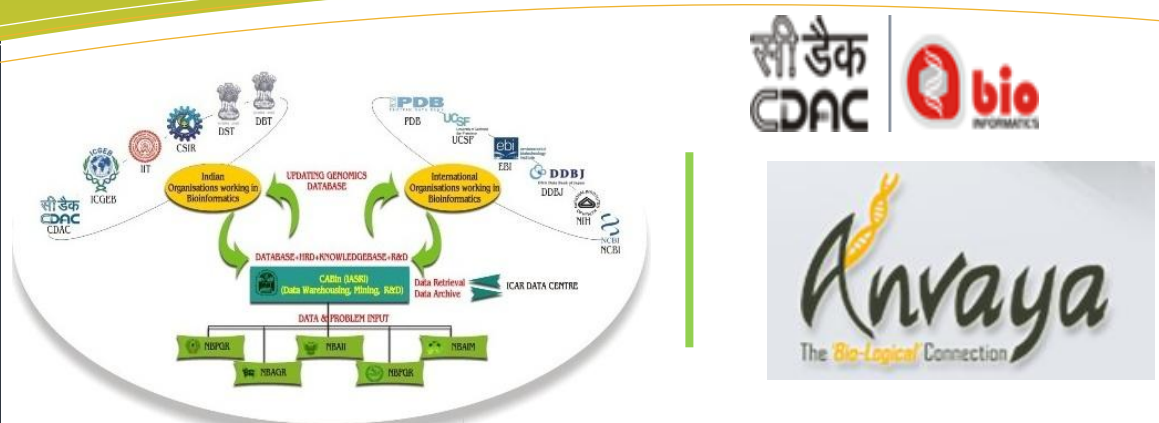- Training Details are available online at **http://nabg.iasri.res.in**

Computational Genome Analysis using ANVAYA

(June 22 – 24, 2011)

INDIAN AGRICULTURAL STATISTICS RESEARCH INSTITUTE
Library Avenue, New Delhi - 110012

BIOINFORMATICS TRAINING PROGRAMME

About Anvaya

Anvaya, is software that consists of Bioinformatics tools and databases that are loosely coupled together in a coordinated system to execute a set of analyses tools in series or in parallel. Anvaya is a stand-alone client-server workflow environment that has a clear advantage over existing workflows software most of which are internet-based and hence are dependent on the bandwidth-available. One of the unique features of 'Anvaya' is the 'rules engine' that defines rules for logical connection between the existing tools. 'Anvaya' offers the user, novel functionalities to carry out exhaustive comparative analysis via 'custom tools', which are tools with new functionality not available in standard tools and 'built-in PERL parsers', which automate data-flow between tools that hitherto, required manual intervention. Visit : http://bioinfo-portal.cdac.in

Indian Agricultural Statistics Research Institute has been and continues to be a premier Institute of the ICAR with glorious tradition of carrying out research, teaching and training in the areas of *Agricultural Informatics*. The Institute has broadened the horizon of capacity building by opening its doors to the agro-based private sector. The vision of institute is to use the power of statistics as a science blended judiciously with Information Communication Technology to enhance the quality of agricultural research. To convert vision into a reality, the institute has set for itself a mission to undertake research, teaching and training in Agricultural Statistics/ Computer Applications/ Agricultural Bioinformatics so that these efforts culminate into improved quality of agricultural research and also meet the challenges of agricultural research in newer emerging areas.

Centre for Development of Advanced Computing (C-DAC) is the premier R&D organization of the Department of Information Technology (DIT), Ministry of Communications & Information Technology (MCIT) for carrying out R&D in IT, Electronics and associated areas. C-DAC over the last two decades has created a global brand name in High Performance Computing with its indigenously developed PARAM supercomputers. The Bioinformatics Group at C-DAC leverages on this expertise to delve into complex biological systems to provide high throughput solutions and services that will assist in solving the mystery of life itself. Backed by its Bioinformatics Resources and Applications Facility (BRAF), the team has developed an entire spectrum of tools, databases and allied resources for research to address current and future Bioinformatics challenges.

National Agricultural Bioinformatics Grid

Centre for Agricultural Bioinformatics

Technology at work for you

The "omics" revolution has changed the face of modern biology. Genomics, proteomics, transcriptomics and metabolomics, now occupy the centre stage of biological research. High throughput techniques for genome sequencing, gene expression, protein profiling and gene & protein networks/interactions, are classic examples of how biology has changed from a cottage industry to a full-scale production science. Today, the challenges have shifted from issues of large-scale data generation to that of large-scale data analysis. It is the amount and type of biological data, about the cellular states and molecular structures and functions generated by high throughput technologies that have driven the rapid advancement of bioinformatics. Computing is seen to be biologists' number one tool and each increment in the computing infrastructure makes it possible to move up the biological complexity ladder. The storage, analysis and retrieval of the vast amount of such biological data are plausible through the use of powerful high performance computer that would carry out the task of analyzing this data.

ABOUT NABG

Bioinformatics aims to bring biologist, statisticians and computer scientists together from the point of view of system biology approach to understand the biological phenomenon through innovative applications of statistics and computer science. The field of Bioinformatics focuses on developing and applying computationally intensive techniques (e.g., pattern recognition, data mining, machine learning algorithms, and visualization) which gives the opportunity to quickly and efficiently study heap of genomic information, chemical structure and other biological data.

National Agricultural Bioinformatics Grid (NABG) will help in developing databases, data warehouse, software and tools, algorithms, genome browsers and high-end computational facilities through systematic and integrated approach in the field of agricultural bioinformatics.

CONTACT AT:

Dr. V.K. Bhatia
Director
Indian Agricultural Statistics Research Institute
Library Avenue, Pusa, New Delhi-110012
Email: director@iasri.res.in, vkbhatia@iasri.res.in
Phone: 011-25841479   Fax: 25841564

Module 1: Bioinformatics Overview

Module 2: ANVAYA: Overview, and Execution

Module 3: Assembly and Annotation

Module 4: Molecular Phylogeny

Module 5: Prediction of Antigenic sites

Module 6: Prediction of Primers

Module 7: Analysis of Microarray Data

Hands On Session on above Modules

VENUE:

Centre for Agricultural Bioinformatics (CABin),
Indian Agricultural Statistics Research Institute,
Library Avenue, Pusa,
New Delhi 110 012

Weather in New Delhi

During the summer months, New Delhi experience high temperature with occasional dust storms during the day but it is comparatively cooler at nights. Temperature in month of June is approximately 40^0C (max.) and 27^0C (min.)

Nominations

The application for participation may be sent in the format given in the brochure. It must be duly forwarded by the competent authority of the institution. The selected participants will be paid TA/DA as per rules. Free boarding and lodging will be provided to participants during the training program.

Eligibility

- Master's Degree in any discipline of Agricultural/ Allied Sciences
- Working in a position not below the rank of Scientist/Assistant Professor.

Number of participants   : **30**
Last date for receipt of nomination   : **30th May '11**
Selected candidates will be informed: **10th June '11**