NIT INTERSHIP SCHEME

Draft Proposal

This is a draft document aimed at initiating a discussion on **Inter NIT Internships for CS Students**.
This document may evolve to contain guidelines for offering such internships in CS departments of NITs.
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Motivation: Most of the NITs give their students about three month vacation during May, June, July. While very few students get internship offers from reputed firms and top-tier institutes of the country and abroad, there are many who are left with no decent offers.

Plan: Participating CS departments of NITs will provide a common platform for students who have completed 3 years of the 4 year B.Tech CS programme to apply for academic internships in CS departments of other NITs. Minimum period of internship is 2 months. Offers will be given based on student's interests and availability of faculty.

Discussion Points (may add more):

1. Will we get 'good' students?
    May be - SURGE, VSRP have very limited number of seats. We have so many students left out with no good options for internship. Instead of joining some training centers, CS departments in other NITs could be a good choice. Further there might be students interested in joining institutes near them.

2. Who will meet the expenses?
    Students are expected to take care of their travel and food expenses. Institute accommodation in student hostels (on payment basis) need to be offered to the selected students.

3. Who all will participate?
    Any NIT Computer Science department who is willing to accommodate, few students, say 5, from other NITs can participate in this programme. The selected students are to be closely guided by a permanent faculty of the department. A certificate of internship also needs to be given to the students on successful completion of the internship.

4. What do we gain?
    Our students may get a decent internship option and an internship certificate. We get a chance to interact with students of other NITs who are interested in our area of work.

5. Who will co-ordinate?

In each NIT CS department, there will be one coordinator who will shortlist few application (say a maximum of 15 from that department to other NITs restricting requests to any specific outside NIT at a maximum of 5) and forward the concerned applications to the corresponding coordinators.

6. How is the shortlisting done?
   This may be left to the individual department / coordinator. CGPA may be the best decider.

7. What is the role of the department coordinator?
   - Invite applications from students of the department, shortlist if necessary, and send it to the corresponding coordinators.
   - Receive applications from other coordinators and make a decision and communicate this decision to other coordinators.
   - Once the decision on student applications are available from other NITs, the coordinator may verify and pass on the information to the students and ensure that the offers are not ignored.

8. How will a coordinator make an offer?
   Once a coordinator gets all the applications to his/her department (sent from other coordinators), a confirmed list and a wait list of offers may be prepared by him/her based on the faculty / infrastructure availability and nature of applications. The offers are to be sent to the coordinator of the NIT to which the student belongs.

9. Who will inform the students?
   The coordinator of the department to which the student belongs.

10. What happens if a student does not turn up - an offer is rejected?
    We expect that some offers will be rejected. The concerned coordinator has to be informed at the earliest.

11. Do we create a portal for uploading / viewing applications?
    May be in the first run, it is better to go with emails and based on the feedback of coordinators and students' interest, we could think of a more automated system from next year.

12. For 2016 internships what do we do?
    - Finalize on discussion points at the end of this meeting.
    - Inform all NIT CS departments of this proposal and ask them to nominate a coordinator for 2016, if interested.
    - Make the list of 'participating institutes' with coordinators - share it among all coordinators.
    - Each coordinator invites applications from students (Submission **Deadline**: March 15)
    - Format of application form: (A google form template is prepared for reference)

- The relevant applications (restricting to a total of 15, maximum 5 to a particular NIT) are shared among the concerned coordinators (Consolidating **Deadline**: March 31)
- Each department communicates its offers (with a possible wait list) to the concerned coordinators.
      (Results **Deadline:** April 15)
- Each coordinator finalizes the offers received ensuring that no student gets more than one offer and communicates to the students. (Offer **Deadline:** April 20)
- Students are expected to accept the offers and commit for the internship. (Acceptance **Deadline**: April 25)
- The accepted offers are communicated back to the concerned coordinators. (**Deadline**: April 30)

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   From then on, the student may interact with the coordinator / faculty of the department where he/she is expected to carry out the internship.

13. Can we have sponsorships / scholarships etc.?

14. What is the responsibility of the host department to the visiting interns?
   The faculty who has agreed to mentor the visiting intern is expected to be available during the internship period. For the visiting students, the responsibility of the host department is limited to providing student accommodation and food in the institute hostels (on payment basis). Permissions for using lab facilities, library and internet are also expected. An internship offer letter from the host institute along with the valid ID from the student's institute may be sufficient for a legal stay in the campus.

Decisions Taken

A website for announcements regarding internships in CSE/IT departments of different NITs will be setup.

Each participating NIT will have a coordinator for this programme.

The coordinator will inform cscan16@nitc.ac.in the names and web links of those faculty who are willing to receive the internship requests from students of other NITs.

A webpage will be created in C-SCAN'16 site for consolidated display of the received information and the link will be shared with all the coordinators for publicity among students. The C-SCAN website will be hosted and maintained by the respective NIT which is hosting C-SCAN for the year.

FACULTY EXCHANGE

Draft Proposal

Objectives

1. Sharing the faculty expertise across NITs for the benefit of students.
2. Better faculty interaction among NITs which may lead to collaborative research.
3. A means to address faculty shortage.
4. To find resource persons for FDPs, Workshops, Short term training programmes etc.
5. To work and act as a single CSE department at national level.

Terms and conditions

1. The exchange will be from one to three weeks maximum.
2. The hosting Institute will provide campus accommodation and travelling allowance and necessary logistics for pickup and drop etc.
3. A nominal honorarium if possible may be given.
4. The faculty going to another NIT for a short assignment should obtain permission from the DCC so that work in the parent department is no way affected.
5. The period of this deputation will be considered as special casual leave/duty leave sanctioned by the H.O.D or Dean (Faculty Welfare).
6. The attendance statement from the visiting NIT will be counted for salary calculation in the parent Institute.

Guidelines on Implementation

Following are the proposed guidelines for the implementation of Faculty ExchangeProgramme:

1. CSE departments of each NIT shall have a co-coordinator for Faculty Exchange Programme.
2. It is good to have a central coordinator to facilitate communication among the department coordinators as well as to make sure that any important updates are reaching to all in the participating departments via email or website. The central coordinatorship can be changed also if one of the department coordinators wishes to serve in that role. This change can be once in two years.
3. Each participating department will publish their requirements as well as resources (details of faculty who are willing to serve as resource persons under this programme) at

least once every semester. For getting sufficient time to make necessary preparations on various matters, these announcements can be made in the first week of July and December every year. This information could be circulated among the co-coordinators through e-mail or a website

4. Departments interested in utilizing this service may get in touch directly with the coordinator of the department that offers resources.
5. There would be a Central database, possibly located on a web server, and each coordinator can update the details on the website. The central coordinator can be the in-charge of the central database. The central database can be using any of the social networking sites well.
6. The central coordinator can take charge of the maintenance of the website/central database.
7. Department coordinators can ask for the interest of faculty members from their departments, who would like to serve as a resource person and share with other coordinators. Once a request for a particular course is received from other NITs,
8. Department coordinators can inform the faculty members from their departments about the availability of resource persons from other NITs on different subjects in a semester.

Major Recommendations after C-SCAN'16 conference at NIT Calicut

Using the scheme for FDPs, Implementing similar to Visiting Faculty Scheme, and Concentrating on research collaborations, Granting of Duty leave, Making use for elective courses offered by Ad-hoc faculties and maintaining a central database are some of the points raised by various participants.

The meeting accepted the draft proposal with the following major recommendations based on the above mentioned points:

1. Individual NITs are requested to present the main points of the Faculty exchange programme in their respective Department Consultative Committees.
2. The implementation plan has to be decided by each CSE department at their parent institute.

RESEARCH COLLABRATION

Draft Proposal

Expected Outcome: A document/guideline for research collaboration among all NITS. Identifying experts/group for implementation of the outcomes.

- Aim of Collaboration
    - Quality research output improvement
- Outcomes of Collaboration
    - Joint Research Projects and Ph. D guidance
- Some starting objectives

  We had identified the following points for discussion. More ideas that can be included in the document are invited from the delegates.

- Joint Research Guidance
- Infrastructure Exchange
- Expertise Sharing
- Coursework crediting for research students
- Post-doctoral scheme for faculty
- Research group formation

  With this discussion we are expecting to identify the potential ways to establish research collaboration between all NITS. Here we will try to identify the feasible ideas that can be implemented without much hassles or administrative issues. As an outcome of the discussion we are expecting to arrive at a set of guidelines for practically implementing the ideas and a group of experts can be identified to prepare the same.

Joint Research Guidance:
    Discussion on exploring the possibilities of joint research guidance and also about sponsored research. MTech joint guidance and external thesis evaluation.
Infrastructure Exchange:
   Utilizing the infrastructure of the other NIT's for research activities like journal access, plagiarism software, clusters, super computer etc.

Expertise Sharing

  Expertise sharing by invited lectures, offering courses etc. (formal and informal). Short term visits to attend expert lectures etc. Arranging teleconference/Webinars.

Coursework crediting for research students

 Permitting to do coursework in other NITS if the course is not offered or experts are not available.

Post-doctoral scheme for faculty

Research group formation

 Research group formation and creating platform for the same. Hosting, maintenance etc. of the central repository. Online research discussion. Identifying research tracks for conference.

A forum for identifying/circulating information regarding sponsored projects/proposals etc.

A few proposed research groups:
- Algorithms and Theoretical Computer Science
- Computer Architecture and Operating Systems
- Programming languages and Compilers
- Software Engineering and Databases
- Cloud and Distributed Computing
- Machine Learning, data Mining and AI
- Bioinformatics
- Image Processing and Pattern Recognition
- Security

Decisions Taken