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Minutes of 2nd Board of Studies of Centre for Nanotechnology

Date of meeting: 27.04.2017

The 2nd Board of Studies (BoS) meeting of 1st Centre for Nanotechnology (CNT) was held on 27.04.2017 at the conference hall of CUJ. The Following Members were attended the meeting.

1. Prof. R.K.Dey, Head, CAC, Convenor and Ex-officio Chairman
2. Prof. Alok R. Ray, CBME, IIT, Delhi, External Member
3. Prof. Usha Jha, BIT, Mesra, External Member
4. Prof. S. Medhekar, Head, CAP, & CoE, CUJ, Member
5. Dr. Manoj Kumar, Head, CEVS, & Deputy Registrar (Acad./Admn.), CUJ-
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6. Dr. B.M.Jha, CEE, CUJ, Member
7. Dr. G.P.Singh, CNT, CUJ, Member
8. Dr. A. Bhattacharyya, CNT, CUJ Member
9. Dr. Lawrence Kumar, CNT, CUJ, Invitee

Prof. P.S. Mallick, Dean, School of Nano science & technology, VIT, expressed his inability to attend the meeting due to some urgent academic meeting at his place, hence regretted.

In the beginning, Prof. R.K.Dey, Head, CNT, expressed his deep sense of happiness and gratitude for presence of all members in the meeting. Prof. R. K. Dey, Head, CNT has given the introduction of all members to the board. Prof. Dey expressed his immense pleasure and gratefulness. He welcomes all external members who have attended the meeting despite of various busy schedules. Prof. Dey also individually welcomes all other members from various centres of CUJ, including Centre for Nanotechnology, who has attended the meeting and hence to make the event academically successful and productive.

Thus, with the permission of Chair, the following presentation and discussions were made:

- (1) Brief Introduction about Centre for Nanotechnology, introduction about academic and research activities of the centre – The Head, CNT, brief the board about current 5 year programme run by the CNT. Further, various

Prof R K DEY
Professor & Head
Centre for Nanotechnology
Central University of Jharkhand
Bhubaneswar, Ranchi - 835205

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research activities taken up by the centre was elaborated by Dr.G.P.Singh, Asst.Prof.,CNT

- (2) Briefing about the University Ordinance – Head, CNT read out the university ordinance and the relevant clause regarding constitution, quorum and function of the BoS. Thus it is appraised that the present BoS fulfills the quorum requirement to conduct the meeting.

After the above briefing, the agenda items were taken up:

Agenda item 1:

Confirmation of minutes of 1st Board of Studies: The Head of the Centre apprised the Board regarding the minutes of the 1st BoS and regarding incorporation of minor revisions in the course content of organic and physical chemistry syllabus. Dr. G.P.Singh, Asst. Prof., CNT and Dr. A.S.Bhattacharyya, Asst.Prof.CNT, apprised the members that the suggestions made by the members have been duly incorporated in the syllabus.

Resolutions: Since no further comments were received, the minutes of 1st BoS was confirmed.

Agenda item 2:


5-year course structure of M.Tech. Nanotechnology – discussion regarding course structure and revision incorporated in:

- (a) 1st yr. – theory and lab
- (b) 2nd yr. – theory and lab
- (c) 3rd yr.- theory and lab
- (d) 4th yr.- theory and lab
- (e) 5th yr.- M.Tech Thesis
- (f) Examiners list approval

Dr.A.S.Bhattacharyya, Asst.Prof., CNT, presented the 5 year course structure currently run by CNT. There are 5 batches of students from different admission years i.e., 2016, 2015, 2014, 2013 and 2012 were currently pursuing the course.

Following minor revisions were suggested and discussed:

- (a).Semester V (in present choice based credit system) should consist of 5 elective papers out of which 2 elective can be taken from courses floated outside center/school.



Prof. R. X. DEY
 Professor & Head
 Centre for Nanotechnology
 Central University of Jharkhand
 Brambe, Ranchi - 835205

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(b).merging of two papers i.e., introduction to nanoscience and nanotechnology and synthesis and properties of nanomaterials to one course – Synthesis and properties of nanomaterial.

(c). In view of present difficulty in conducting lab (due to limited infrastructural problem) few lab based experiments should be designed based on available resources. It is also appraised that presently students are conducting few experiments in BIT, Mesra.

Resolutions: The members pointed out some minor modification in course structure and course content including incorporation of lab experiments. The choice based credit course structure was also well accepted by the board member. Board members strongly recommended setting up the lab facilities at the earliest for the benefit of the students and on priority basis.

Agenda item 3

Proposed introduction of 2 year course structure in nanotechnology (M.Tech., Nanotechnology) from June, 2017 admission

- (a) Academic council recommendation
- (b) Presentation and discussion on 2 year course structure

1. The Head of the Centre apprised the members regarding in principle acceptance of the introduction of the 2 year Master degree course in nanotechnology from the ensuing academic year/session 2017-18. It is also apprised that the in principle recommendation/approval has been obtained from Academic Council to change the name of the Centre for Nanotechnology to Centre (or) Department of Nanoscience and Technology.
2. Dr. G.P.Singh, Asst. Professor, CNT presented the proposed new 2- year syllabus.

Resolutions:

It is unanimously resolved to implement the 2-year Programme from ensuing semester 2017 – 2018. It is also resolved to adopt the academic committee recommendation regarding change of name of the Centre for nanotechnology to Department of Nanoscience and Technology. However, some modification in the presented course structure and content is recommended by the learned members is presented as follows:

- (i). The name of the paper “Materials Science” is proposed to change as: Materials Science and Engineering.

Prof. RIKDEY
 Professor & Head
 Centre for Nanotechnology
 Jharkhand
 University of Jharkhand
 Ra. Ranchi - 835205

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(ii) Credit requirements of 2 year master degree programme may be restricted to 20 in each semesters. May be higher credit requirement (24 credits) can be considered for M.Tech. Thesis work in IX and X semester of 2 year programme. The same may also be adopted for 5 year programme also depending upon the convenience of faculty strength and infrastructural facilities available.

(iii).It is appreciated that elective course is being proposed to be provided in 1st sem and 2nd sem of the proposed 2 year course progamme.

(iv). Some elective course can be merged to provide only one course depending upon faculty expertise and infrastructure availability.

(v). Subjects such as appreciation of scientific papers, seminars to be included in the 2 year programme.

(vi). Papers like Materials science and engineering and characterization of materials should be included M.Tech 1 year syllabi, conveniently.

(vii). The syllabi of nanoelectronics, nanophotonics, nanomagnetism and nanocomposites to be reframed as per AICTE and reference can be taken from other reputed institutions offering such courses.

(viii). The members suggested to do the refinement of each courses taking care of typographical errors if any and to add newly published books or revised editions.

(ix). Interdisciplinary course as per Choice Based Credit System as per UGC guidelines, as applicable, should be adopted.

It is resolved that all such modifications as suggested by members shall be incorporated and the final course structure shall be sent to the members by e mail for their observation and recommendation, if any.

(x). The proposed name change is also accepted subject to approval by academic council and governing body of the university.

Agenda item 4

1. Ph.D. related matters –

(A): Ph.D. course work presentation and incorporation of minor revision, if any, Incorporation of new course structure

(B):Presentation and discussion on: progress report of individual students/coursework completion report/thesis submission report/list of examiners of all students submitted by supervisors/minor correction in title, if

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Central University of Jharkhand
Ranchi - 835205
Professor & Head
Centre for Nanotechnology
Central University of Jharkhand
Ranchi - 835205

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any/minor correction if any, doctoral committee members list submitted by supervisors.

- (a) 2014 batch Ph.D. admitted students
- (b) 2015 batch Ph.D. admitted students
- (c) 2016 batch Ph.D. admitted students – information regarding course work allotment/allotment of supervisors/consideration of doctoral committee members.

Resolutions:

- 1. PhD. Course work/syllabi presented by Dr.G.P.Singh, is agreed by all members and it is also suggested to incorporate new courses, relevant to nanoscience and technology, as elective as per the availability of expertise in the field from the Centre from time to time.
- 2. It is also proposed that subject related to Research Methodology should be included in the course curriculum.
- 3. The progress report of following students were discussed:

Ph.D. students progress:

- Ms.Soumita Jana (2014 batch)
- Mr.Parameswar Kummu (2014 batch)
- Mr.Ramagiri Praveen Kumar (2015 batch)
- Mr.Durgesh Kumar (2016 batch)

It is noted that all students have been completed their course work successfully. Further specific recommendations are as follows:

CRC/DRC progress reports are found to be satisfactory for all the above scholars; hence recommended for renewal of university fellowship (or) fellowship from the project, as applicable, as per the application submitted by the students which can be considered for extension for further period of 1 year.

Following supervisor(s) of above Ph.D. students, which has also been approved in earlier meeting, is further recommended to carry out their work under their supervision to allowed to submit their progress from time to time:

Dr.A.S.Bhattacharyya, principal guide/supervisor (Ph.D) of Mr. Ramgiri Praveen Kumar, Mr. Parameswar Kummu and Co-Supervisor of Ms.Soumita Jana.

Prof. R. K. DEY
Professor & Head
Centre for Nanotechnology
Central University of Jharkhand
Brambe, Ranchi - 835205

Dr. A. S. Bhattacharyya

Dr. P. K. Singh

Dr. G. P. Singh

Dr. R. K. Debnath

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Dr.G.P.Singh, Ph.D. supervisor (principal guide) of Ms.Soumita Jana and Co-Supervisor of Mr.Parameswar Kummu.

Dr.Lawrence Kumar, Ph.D. supervisor of Mr.Durgesh Kumar.

CRC/DRC are advised to be conducted at regular interval for updating the progress of the scholars.

It is noted that all above students have been successfully completed their course work (results have been published).

As per the Ordinances on the Doctor of Philosophy Program (DRAFT) 2016 [Under Section 28 (d) of Central Universities Act, 2009 read with Statutes 16(3)], following should be the **DEPARTMENT/CENTRE RESEARCH COMMITTEE (DRC) AND ITS FUNCTIONS**

Accordingly, for newly admitted scholars, The Centre for Nanotechnology has the following **DRC members:**

1. Head of the Centre – Chairman (ex-officio)
2. Dr.G.P.Singh – Asst.Prof., eligible supervisor
3. Dr.A.S.Bhattacharyya, Asst.Prof., eligible supervisor
4. Dr.Lawrence Kumar, Asst.Prof., eligible supervisor

*Academic council resolute to consider only eligibility of supervisor only for regular faculty members appointed against the sanctioned post.

It is advised that as per new Ph.D.regulation, the RAC should be as follows:

- Head – Chairman, ex-officio
- Supervisor
- Co-supervisor – if any
- One eligible supervisor of the Centre
- One eligible supervisor from outside the Centre

As all these committees are meant for evaluating the regular progress of the research work of the students, and in order to expedite the progressive evaluation from time to time, the members advised to follow the above composition for newly admitted students and get it approved from competent authority. The same can be placed in next Board of Studies meeting for information.

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The constitution of DRC/RAC shall be as follows:

Sl.No.	Name of the scholar(s)	Supervisor(s)	RAC
1.	Ms. Soumita Jana/2014 batch admission/regd.no. CUJ/P/2014/PHDNT/001 regulated by 1 st Ph.D. ordinance of the university (CUJ/	Dr.G.P.Singh Asst.Prof., CAC (supervisor) Dr.A.S.Bhattacharyya, Asst.Prof.CNT (Co-supervisor)	Head- chairman (ex-officio) Supervisor – Dr.G.P.Singh, CNT Co-supervisor – Dr.A.S.Bhattacharyya, CNT One eligible supervisor of Centre – Dr.Lawrence Kumar, CNT One eligible supervisor from

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Centre for Nanotechnology
Central University of Jharkhand
Ranchi - 835205

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			outside the CNT – Prof.S.Medhekar CAP
2.	Mr.Parameswar Kummu, CUJ/P/2014/PHDNT/002/ regulated by 1 st CUJ ordinance	Dr.A.S.Bhattacharyya, Asst.Prof. CNT, Supervisor Dr.G.P.Singh, CNT, Co-supervisor	Head- chairman (ex-officio) Supervisor – Dr.A.S.Bhattacharyya Co-supervisor – Dr.G.P.Singh One eligible supervisor of Centre – Dr.Lawrence Kumar, CNT One eligible supervisor from outside the CNT – Dr.Biplab Kuila, CAC
3.	Mr.Ramgiri Praveen Kumar, 2015 admission, regulated by 1 st ordinance of CUJ- revised as the doctor of philosophy draft 2016 phd regulation	Dr. A.S.Bhattacharyya, Asst.Prof., CNT	DRC Head of the Centre as Chairman, ex-officio & all eligible faculty members of the centre as members CRC Head- chairman (ex-officio) Supervisor – Dr.A.S.Bhattacharyya, Co-supervisor – Nil One eligible supervisor of Centre – Dr.G.P.Singh, CNT One eligible supervisor from outside the CNT – Dr. Biplab K. Kuila, CAC
4.	Mr.Durgesh Kumar, newly admitted in 2016, hence regulated by new Ph.D.regulation, 2016	Proposed guide: Dr.Lawrence Kumar, Asst.Prof., CNT	DRC Head of the Centre as Chairman, ex-officio & all eligible faculty members of the centre as members CRC Head- chairman (ex-officio) Supervisor – Dr.Lawrence Kumar, CNT Co-supervisor – Nil One eligible supervisor of Centre – Dr.A.S.Bhattacharyya, CNT One eligible supervisor from outside the CNT – Dr.A.K.Padhy, CAC

The above suggestion is accepted and hence, the Head, CNT, is recommend to do needful regarding further steps as per the procedure outlined in DRAFT-PhD. Regulation.

Agenda item 5

Consideration of change of name of the Centre for Nanotechnology to Centre for Nanoscience and Technology

The matter was put up before the Board of studies members to consider introduction of change of name of the centre to the Department which is in-principle approved by the academic council of the university.

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 Prof. Dr. D. S. ...
 Professor & Head
 Centre for Nanotechnology
 Central University of Jharkhand
 Bramba, Ranchi - 835205

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Resolution:

The Head of the Centre apprised the members regarding in principle acceptance/in principle recommendation/approval has been obtained from Academic Council to change the name of the Centre for Nanotechnology to Centre (or) Department of Nanoscience and Technology. It is suggested to change of the name of the Centre to: **Centre (or) Department of Nanoscience and Technology** for wider and better benefit of the students and faculty members keeping in view the future changing scenario in nano science and technology course curriculum, students acceptance in broader areas/discipline and benefit to be derived in job, postdoc, and all future prospective of the centre.

However, it is also appraised that the matter may be put up before respective authorities of the University for Approval Process.

Agenda item 6

- 1. Consideration of proposal of additional faculty members required by the Centre.

Discussion and resolution:

Currently CNT has ^a sanctioned strength of 07 number of regular faculty.

Prof. – 01, Associate Prof. – 02 and Asst.Prof. – 04

Currently ^{only} 03 number of faculties (regular) are working. Hence, there is an urgent need to fill the vacant positions. Further, it is felt that since nanoscience and technology is purely an interdisciplinary area of study and research, hence it will be appropriate to induct faculty from various branches of sciences and technology for which eligibility criteria may be suitably modified. This may also be communicated to UGC, New Delhi, for information. Head of the CNT may appraise CUJ to take necessary step for specific requirement of the centre in various areas of pure and applied sciences and allied subjects and engineering subjects and interdisciplinary subjects. Depending upon further requirements, more and more interdisciplinary subjects and faculties of expertise can be inducted from time to time. This is agreed and accepted by all.

Additional agenda items:

- 1. List of examiners approval

The Board of studies noted that currently CUJ is adopting the procedure of conducting university examinations and hence evaluations of sessional and

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Professor & Head
Centre for Nanotechnology
Central University of Jharkhand
Baramba, Ranchi - 835205

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end sem exam. by inviting question papers from internal faculty members only. The evaluation procedure follows a transparent process of showing the checked answer scripts to students. Currently, external expert members/faculty members are only invited for conducting lab examination. Hence, it is recommended that in case CUJ opted to invite question papers and evaluation by external expert members/faculties, then it is recommended that universities, institutions of repute such as BIT, Mesra, NITs, IITs, CUs and other adjacent state universities teaching relevant discipline/subjects may be considered. As such it is felt that it is not necessary to specifically name any external faculty member(s) to invite question papers or evaluations and the Head of the Centre may take a judicious/learned decision in this regard.

2. It is submitted to the Board of Studies that 03 batches of students have been passed from the Centre for Nanotechnology and many of them are currently working in various institution of repute inside country and outside country. The Board of Studies took note of the passing out students and praised the dedicated efforts of the faculty members and staff members as a whole considering its newly established characteristics and its present limitations. It is also suggested to encourage students to seek more fellowships from various funding agencies.
3. External expert member, has suggested for possible collaboration/student exchange program with foreign universities in line with what some of the private institutes are doing and to explore the fund provisions given by some of the funding agencies such as DST for the same. The recommendation/suggestion is very much welcome by all members and Head of the Centre informed that the Centre shall take such initiative at the earliest.

With the above discussion, the Head of the Centre expressed his deep sense of gratitude to all members for an academic vibrant discussion on various matters of the Centre. Since there was no other agenda, the meeting ended with Vote of Thanks by Dr.A.S.Bhattacharyya, CNT.

Members

1. Prof. R.K.Dey, Head, CAC, Convenor and Ex-officio Chairman
2. Prof. Alok R. Ray, CBME, IIT, Delhi, External Member
3. Prof. Usha Jha, BIT, Mesra, External Member
4. Prof. S. Medhekar, Head, CAP, & CoE, CUJ, Member
5. Dr. Manoj Kumar, Head, CEVS, & Deputy Registrar (Acad./Admn.), CUJ-Member
6. Dr. B.M.Jha, CEE, CUJ, Member
7. Dr. G.P.Singh, CNT, CUJ, Member
8. Dr. A. Bhattacharyya, CNT, CUJ Member
9. Dr. Lawrence Kumar, CNT, CUJ, Invitee

Prof R.K. DEY

Professor & Head
Centre for Nanotechnology
Central University of Jharkhand
Baramba, Ranchi - 835205

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