Department of Computational Sciences
Minutes of meeting of Academic and Administrative Committee of Department of Computational Sciences

The meeting of the Academic and Administrative Committee (AAC) of the Department of Computational Sciences was held on 06-01-2022 at 01:00 PM.

The following members were present:

1. Dr. Kousik Giri
2. Dr. Sudip Chakraborty   (Chairperson)
3. Dr. Dharmendra Singh   (Convener)
4. Dr. Arti Sharma
5. Dr. Devinder Kaur   (Co-opted Member)

The following points were discussed and resolution made:

Item 1. The AAC notes that Dr. Dharmendra Singh wants to purchase the following assets from their project grant (UGC-BSR-SRG, GP-188).

(a) A workstation (Intel-Xenon Processor, 128 GB RAM) from Non-Recurring budget head
(b) Portable hard disks (02 nos.) (1TB, SSD) from Non-Recurring budget head
(c) All in one multifunction laser printer from Non-Recurring budget head
(d) Six (06 nos.) RAM (32GB, DDR4) from Recurring budget head

Dr. Arti Sharma   Dr. Devinder Kaur

Dr. Kousik Giri   Dr. Sudip Chakraborty   Dr. Dharmendra Singh
                              07/01/2022   07/01/2022

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7/1/22

Department of Computational Sciences
Minutes of meeting of Academic and Administrative Committee of Department of Computational Sciences

The meeting of the Academic and Administrative Committee (AAC) of the Department of Computational Sciences was held on 06-01-2022 at 01:00 PM.

The following members were present:

1. Dr. Kousik Giri
2. Dr. Sudip Chakraborty   (Chairperson)
3. Dr. Dharmendra Singh   (Convener)
4. Dr. Arti Sharma
5. Dr. Devinder Kaur   (Co-opted Member)

The following points were discussed and resolution made:

Item 1. The AAC notes that Dr. Dharmendra Singh wants to purchase the following assets from their project grant (UGC-BSR-SRG, GP-188).

(a) A workstation (Intel-Xenon Processor, 128 GB RAM) from Non-Recurring budget head
(b) Portable hard disks (02 nos.) (1TB, SSD) from Non-Recurring budget head
(c) All in one multifunction laser printer from Non-Recurring budget head
(d) Six (06 nos.) RAM (32GB, DDR4) from Recurring budget head

Dr. Arti Sharma   Dr. Devinder Kaur

Dr. Kousik Giri   Dr. Sudip Chakraborty   Dr. Dharmendra Singh
07/01/2022   07/01/2022

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DIA-3067
7/1/22

विश्वविद्यालय अनुदान आयोग
University Grants Commission
शिक्षा मंत्रालय, भारत सरकार
(Ministry of Education, Govt. of India)
बहादुर शाह जफर मार्ग, नई दिल्ली-110002
Bahadurshah Zafar Marg, New Delhi - 110002

ज्ञान-विज्ञान विमुक्तये

O/C

FD Diary No. 5788
Dated: 08.11.2021

Dated: November,2021

No.F.30-583/2021(BSR)

The Under Secretary FD-III Section,
University Grants Commission
Bahadur Shah Zafar Marg,
New Delhi – 110002.

18 NOV 2021

Subject: - **Approval-cum-Sanction letter for UGC-BSR Research Start-Up-Grant for newly recruited faculty at Assistant Professors level in Science Departments of various Universities – Release of the grant for the year 2021-2022 under revenue.**

Sir,

The University Grants Commission convey its approval and allocate a sum of ₹10,00,000/-(Rupees Ten Lakh Only) to the **Registrar, Central University of Punjab, Bathinda-151401, Punjab** being the UGC-BSR Research Start-Up-Grant for newly recruited faculty at Assistant Professors level of Science Departments.

Accordingly, I am further directed to convey the sanction of the University Grants Commission for payment of ₹8,00,000/-(Rupees Eight Lakh only) (80% of the approved Grant of ₹10.00 Lakh) to the **Registrar, Central University of Punjab, Bathinda-151401, Punjab** towards UGC-BSR Research Start-Up-Grant for newly recruited faculty at Assistant Professors level in Science Departments as per details given below, the expenditure to be incurred during 2021-2022.

Name of the Item	Head of Account	Name of Faculty/Professor	Name of Departments	Amount Approved (₹)	Amount being released (₹)
UGC-BSR Start-up grant for newly recruited faculty at Assistant Professors level	3(B)16(X) 31	Dr. Dharmendra Singh	Computational Sciences	10,00,000/-	8,00,000/-

2. "Grantee Institutions of the UGC shall ensure that all the payments of approved items to the beneficiaries/vendors shall be made only through the TSA module of PFMS and assignments received from the UGC through TSA module have to be utilized before 31st March of the year. Balances remaining unutilized at the close of the year (31st March) will lapse to the Government and hence written back in Government Account".

3. The sanctioned amount is debitable to the major Head 3(B)16(X) 31 and is valid for payment during the financial year 2021-22 only.

4. The amount of the Grant shall be drawn by the Under Secretary (Drawing and Disbursing Officer) UGC on the Grants-in-aid bill and shall be disbursed to and credited to the **Registrar, Central University of Punjab, Bathinda-151401, Punjab** through Electronic mode as per the following details:

a.	Details (Name & Address) of Account Holder	:	The Registrar, Central University of Punjab, Bathinda-151401, Punjab
b.	Account No.	:	10671301097
c.	Name & Address of Bank Branch	:	Reserve Bank of India, 6, Sansad Marg, Sansad Marg Area, New Delhi-110001
d.	MICR Code	:	-
e.	IFSC Code/ Branch Code	:	RBIS0PFMS01
f.	Type of Account	:	Saving

5. The Grant is Subject to the adjustment on the basis of Utilization Certificate in the prescribed proforma submitted by the University/Institution.

6. The University / Institution shall maintain proper accounts of the expenditure out of the Grants which shall be utilized only on the approved items of expenditure.

7. The University / Institution may follow the General Financial Rules, 2017 and take urgent necessary action to amend their manuals of financial procedures to bring them in conformity with GFRs, 2017 and those don't have their own approved manuals on financial procedures may adopt the provisions of GFRs, 2017 and instructions/guideline there under from time to time.

Project Title: Investigation of Structural and mechanical property correlations for Some Cerium based metallic glasses: A Computational as well as Experimental Study

Keywords: Condensed Matter Physics; Metallic Glasses; Phase separation; Computational Material Sciences; Mechanical property; Transmission Electron Microscopy

Introduction: In recent years, Rare Earth (RE) based metallic glasses (MG's) have attracted more research attention due to their physical characteristics. They refer to glass forming ability, mechanical, magnetic and thermoplastic properties in supercooled liquid region [1-6]. A large numbers of RE based MG's, such as La-, Y-, Er-, Ce-, Sm- based MG's have been synthesized. Out of these, Ce-based MG's are special because their unusual behavior linked to 4f electrons. Cerium is the most plentiful rare earth metal on earth. One of the intrinsic features of Ce is its variable electronic structure and valance states. Thus, very small amount of energy is subjected to change the relative occupancy of the electronic levels e.g. when Ce subjected to very high pressure or low temperatures, a volume collapse of approximately 10% results [7-9]. Therefore, the structural, physical and mechanical properties of Ce-based MG's may have characteristics which are not similar from other known metallic glasses. All these basic issues for the system under consideration will be the subject matter of this project proposal.

Objectives: I hereby, briefly discuss the issues and challenges associated with these alloy systems and the objectives which I shall undertake to overcome these issues.

One of the objectives of the proposed research project is to synthesize MG matrix composites and their mechanical property correlations with structural characteristics. This goal can be achieved by the introduction of selected dispersions of a second phase in the phase separated MG matrix. The volume fraction, morphology and size of the second amorphous phase play important role in the determination of the mechanical properties of MG matrix composites.

In addition to the development and testing of different types of Bulk MG's, a major challenges is to generate fundamental understanding of the role of length scales (micro-nano) of the second phase dispersion on the mechanical properties and the nature of interfaces in the phase separating boundary. Another challenge of current materials synthesis relates to producing bulk material with amorphous and ultrafine microstructures.

Above discussed developments pointed out that nano-porous metallic glasses with high surface, which can be synthesized by selective dealloying of phase separating MG's, can lead to their application as key materials such as hydrogen storage materials for fuel cells or MG foam for nano-filtration. Electrochemically dealloying of the phase separating metallic glasses can be considered as one of the new opportunities for the synthesis of nano-porous metals.

Methodology and Research Plan:

Stage I: Ce-based metallic glasses will be synthesized as well as Theoretical outcome:

    (i)   High purity Elements will be used for the preparation of alloy ingots of fixed compositions by melting the ingredients in the desired ratios using a Radio Frequency (RF) induction furnace. Single roller melt spinning techniques will be used to convert the ingots into amorphous ribbons. The ribbons will be synthesized

Target to be achieved: I expect to get the following important developments and target to be achieved of my proposed research project.

- ❖ I hope to successfully simulate and numerically solve the Cohn-Hillard equation of phase separation with some variable of thermodynamics parameters for Ce based metallic glasses with the help of MATLAB.
- ❖ Synthesis of bi-amorphous phase metallic glass alloy system.
- ❖ I wish to calculate the mircrotructure of Ce based amorphous alloy by Using GAUSIAN software package.
- ❖ Synthesis of controlled crystalline based composite materials and polymer composites with improved mechanical properties.
- ❖ An investigation of bi-amorphous phase in MG's gives us an opportunity to understand the role of two amorphous phases in the intensification and deformation mechanisms in these alloys.
- ❖ It is expected that the alloy developed in the present investigation may be useful for the nano-filtration applications point of view. Microstructure transformation in glasses by high chemical pressure (by minor alloying addition) or by heat treatment can play an important role for their dynamical and mechanical properties.

Details of Collaborations:

S.No.	Name	University/Institute address
1.	Prof. O.N. Srivastava	Department of Physics, Institute of Science, Banaras Hindu University, Varanasi, 221005 India Email: heponsphy@gmal.com
2	Prof. R.S. Tiwari	Department of Physics, Institute of Science, Banaras Hindu University, Varanasi, 221005 India Email: rstiwariphy@yahoo.com
3.	Prof. R.K. Mandal	Department of Metallurgical Engineering Indian Institute of Science, Banaras Hindu University Varanasi, 221005 India Email:
4.	Prof. Kedar Singh	School of Physical Science, Jawaharlal Nehru University, New Delhi, 110067, India Email:
6.	Dr. Devinder Singh	School of Applied Sciences, Amity University, Lucknow, India Email: devinderbhu@yahoo.com

References:

[1] Y.Q. Cheng, E. Ma, Atomic-level structure and structure–property relationship in metallic glasses, Prog. Mater. Sci. 56 (2011) 379–473.

[2] W. Klement, R.H. Willens, P. Duwez, Non-crystlline structure in solidified Gold silicon alloys, Nature 187 (1960) 869.

[3] B. Zhang, R.J. Wang, D.Q. Zhao, M.X. Pan, W.H. Wang, Properties of Ce-based bulk metallic glass-forming alloys, Phys. Rev. B 70 (2004) 224208.

3. Contingency:

S.No.	Justification	Year-1	Year-2	Total
1.	During this period we will need some books, papers, files, equipments running cost, equipment maintenance cost, conferences fees, some disposal items, etc.	60,000	40,000	**1,00,000**

4. Travel/Field work:

S.No.	Justification (Inland Travel)	Year-1	Year-2	Total
1.	For performing some experimental characterization with our collaborator in different Universities/Institutes/Research Centers and other expenditure.	25,000	25,000	**50,000**

Any other information:

I have completed my Ph.D. from **Banaras Hindu University, Varanasi** under the supervision of **Padam Shri Prof. O. N. Srivastava and Prof. R. S. Tiwari.** After that I also availed Dr. D.S. Kothari Post-doc fellowship under the Mentorship of **Prof. Kedar Singh** from **Jawaharlal Nehru University, New Delhi.** During my Ph.D. and Post-doc tenure, I have published more than 10 research papers and one book chapter in journals of international repute. I have also presented my research work more than 15 International/national conferences. My research work is basically focused in computational as well as experimental condensed matter physics. I have good expertise in some computational software packages as like, MATLAB, GAUSSIAN, CASTEP, JANA, ENDEVIOUR, ORIGIN-PRO, etc. I have enough proficiency to handle various equipments as likes:

> Experience on Metallic Glass preparation using Solid State Diffusion, Rapid Solidification and Rapid Solidification followed by annealing and synthesis of metallic glass through rapid solidification technique.
> Expert in structural characterization using X-ray diffraction (XRD), Transmission electron microscopy (TEM) and scanning electron microscopy (SEM) techniques
> Handling of various vacuum systems.
> Handling of differential scanning calorimetry (DSC) and differential thermal analyser (DTA)
> Handling of SHIMADZU HMV-2T Micro-indentation tester and Nano-indentation using Hysitron Triboscope 4 with a Berkovich indenter.
> Expertise in RF induction melting of various materials.
> Twin Jet Polisher (Struer's Tenupol-5)
> Vibrating Sample Magnetometer (VSM)

If I am able to get or grasp this grant, it will play an important role in my research endeavour.

5

Department of Computational Sciences
Minutes of meeting of Academic and Administrative Committee of Department of Computational Sciences

The meeting of the Academic and Administrative Committee (AAC) of the Department of Computational Sciences was held on 24-02-2022 at 04:30 PM.

The following members were present:

1. Dr. K. Saraboji
2. Dr. Kousik Giri
3. Dr. Sudip Chakraborty
4. Dr. Dharmendra Singh
5. Dr. Arti Sharma
6. Dr. Devinder Kaur

The following point was discussed and resolution made:

Item 1. The AAC Notes that DCS wants to purchase some stationery items (500 spring files and 20 A4 paper ream).

Item 2. The AAC Notes that Dr. K. Saraboji and Dr. Arti Sharma want to apply for the University RSM grant.

Item 3. The AAC Notes that the Departmental recurring budget may be allocated to newly appointed faculty members of 1.5 Lacks for each member (Dr. K. Saraboji and Dr. Arti Sharma).

Item 4. The AAC notes that each faculty member of DCS want to purchase the Molecular structure display models.

Item 5. The AAC Notes that Dr. Sudip Chakraborty wants to purchase the following recurring items from departmental recurring budget.
    1. Two portable Hard-disks (4TB)

Item 6. The AAC Notes that Dr. K. Saraboji and Dr. Arti Sharma want to purchase the following recurring items from departmental recurring budget.
    1. Two portable Hard-disk (1TB, SSD)
    2. Some stationery items (paper, files, stapler, etc.)
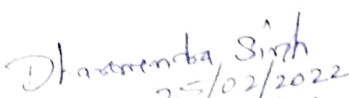

Dr. Arti Sharma   Dr. Devinder Kaur   Dr. K. Saraboji

Dr. Kousik Giri   Dr. Sudip Chakraborty   Dr. Dharmendra Singh

Department of Computational Sciences
Minutes of meeting of Academic and Administrative Committee

The meeting of the Academic and Administrative Committee (AAC) of the Department of Computational Sciences (DCS) was held on 25-04-2022 at 02:45 PM.

The following members were present:

1. Dr. K. Saraboji   (Chairperson)
2. Dr. Kousik Giri
2. Dr. Sudip Chakraborty
3. Dr. Dharmendra Singh   (Convener)
4. Dr. Arti Sharma
5. Dr. Devinder Kaur   (Co-opted Member)

The following point was discussed and resolution made:

Item 1. The AAC notes that all the preparation for the Internal Academic and Research Audit may be completed before 4th May 2022.

Item 2. The AAC notes that all the document preparation for the NAAC visit may be completed by the first week of May 2022.

Item 3. The AAC notes that the Board of studies will be scheduled on 11th May 2022 in offline mode and planned for a mini-symposium with external experts after BoS meeting.

Item 4. The AAC notes that the departmental Recurring Budget will be allocated as follows to meet the individuals' requirements:

S. No.	Name of the faculty	Amount allocated (INR)
1	Common fund for departmental expenditure	1,00,000/-
2	Dr. K. Saraboji	60,000/-
3	Dr. Kousik Giri	60,000/-
4	Dr. Sudip Chakraborty	60,000/-
5	Dr. Dharmendra Singh	60,000/-
6	Dr. Arti Sharma	60,000/-
	Total	4,00,000/-

Item 5. The AAC notes that since there is no specific NET/JRF for students specialized in various computational sciences programs PhD student intake has been reduced in the department.

Item 6. The AAC notes that the DCS needs to prepare about 25 photographs of eminent scientists. This requirement may be completed within a week.

Item 7. The AAC notes that the DCS needs window curtains in the teaching and research labs.

Item 8. The AAC notes that the DCS needs pushpin notice boards outside the teaching and research labs.
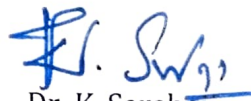
Dr. Arti Sharma   Dr. Devinder Kaur   Dr. Dharmendra Singh

Dr. Kousik Giri   Dr. Sudip Chakraborty   Dr. K. Saraboji

DIA Office
S No. 4406
Date 28/4/22

Department of Computational Sciences

Minutes of meeting of Academic and Administrative Committee of Department of Computational Sciences

Ref.No:- CUPB/DCS/2022/137.

Date:- 19/05/2022

The meeting of the Academic and Administrative Committee (AAC) of the Department of Computational Sciences (DCS) was held on 12-05-2022 at 03:00 PM.

The following members were present:
1. Dr. K. Saraboji   (Chairperson)
2. Dr. Kousik Giri
3. Dr. Sudip Chakraborty
4. Dr. Dharmendra Singh   (Convener)
5. Dr. Arti Sharma
5. Dr. Devinder Kaur   (Co-opted Member)

The following point was discussed and resolution made:

Item 1. (a) The AAC notes that to encourage learner autonomy and students' ideas, M.Sc. project work (Dissertation Part-I & Dissertation Part-II) may be allotted to the individual faculties based on the student's research plan/motivation.

(b) The notes that if some students lack the research idea, the faculties guide them in writing the research plan/motivation for research.

(c) The AAC notes that to ensure the quality and transparent project allotment process, based on the student's research interest, the enclosed guidelines may be followed.

Dr. Arti Sharma   Dr. Devinder Kaur   Dr. Dharmendra Singh

Dr. Kousik Giri   Dr. Sudip Chakraborty   Dr. K. Saraboji

Seen
WRK 20/5/22

Enclosures:
(i). M.Sc. Project allotment Guidelines
(ii). Format to submit Research plan/motivation

DIA Office
S. No. 4741
Date 19.5.22

M.Sc. Project allotment Guidelines:

1. Students need to submit a short research plan or motivation for research in the relevant domain in which they prefer their project work to the concerned faculty/investigator.

2. The faculty/investigator has to screen all the received write-ups and shortlist the required number of candidates. The shortlist/selection must include more than two following components,

   (i) CGPA, (ii)CU-CET score, (iii) interaction/interview, (iv) scientific merit of the write up, (v) prior work experience in the relevant domain

3. A Department level meeting needs to be convened to ensure the following:

   (a) Students' research preference matches the faculty's research domain.
   (b) If the facility has not selected a candidate, other suitable faculty need to be identified/proposed by the first facility.
   (c) The identified faculty will serve as a project supervisor with the mutual interest/concurrence of the student and faculty.
   (d) At the final distribution, an equal number of students is allotted for every faculty (based on the total number of students).

4. The entire process needs to be recorded in the write-up document submitted by the student as a best practice to keep up the quality and transparent project allotment process based on the student's research interest. (Format to submit Research plan/motivation is enclosed)

5. The minimum and maximum number of project students for a faculty will be fixed at the department meeting based on the total strength of the students and lab space.

6. Since the Department of computational sciences offers courses specialized in physics, chemistry and life sciences, the faculty can guide the students of other divisions to maintain an interdisciplinary environment with mutual interest/concurrence of the student and faculty.

7. A project coordinator will be designated at the department level to manage the entire process smoothly.

During the project Progress:

8. The Supervisor has to follow an attendance mechanism to ensure the regularity of the student for project work (Dissertation Part-I & Dissertation Part-II)

9. The candidate needs to submit a monthly work progress report (duly signed by the supervisor) in the first week of every month at the department office (Dissertation Part-II)

10. A mid-semester presentation needs to be conducted during Dissertation Part-II at the departmental level to monitor the progress of student project works.

Title of the study:

Name of the student:	Reg No.:

Programme: M.Sc. -	Faculty Name:

Signature of the student with date:	CGPA:
	CU-SET score:

Recommendation by the faculty	Selected / Not selected

Screening methods used for Recommendation:

(*Use more than 2 criteria)

CGPA	CU-CET	Interaction / Interview	Scientific merit of the write up	Prior work experience in the relevant domain

If not selected, Name of the suitable faculty:

Signature of the suitable faculty with Name and Date:	*Selection accepted*
	Signature of the student with date:

Any other:

Date: 03/06/2022

Ref.No:- CUPB/DCS/2022/149

The meeting of the Academic and Administrative Committee (AAC) of the Department of Computational Sciences (DCS) was held on 25-05-2022 at 03:30 PM.

The following members were present:
1. Dr. K. Saraboji   (Chairperson)
2. Dr. Kousik Giri
2. Dr. Sudip Chakraborty
3. Dr. Dharmendra Singh   (Convener)
4. Dr. Arti Sharma
5. Dr. Devinder Kaur   (Co-opted Member)

The following points were discussed and resolutions made:

Item 1. PhD syllabi of all programs offered in DCS need to be revised with advanced topics compared to the M.Sc courses.

Item 2. The AAC notes that the DCS will prepare all the necessary documentation for the NAAC peer team visit before the summer holidays (24th June 2022).

Item 3. The AAC notes that Mr Saurab Jindal, PhD Scholar of DCS, will submit a request for his PhD extension for approval of the competent authority. Further, AAC notes that an extension of one semester may be provided by considering his work progress and delay due to the COVID breaks and a road accident that he met.

Item 4. The AAC notes that Mr. Ali Garib, Ph.D. Scholar of DCS will work under the supervision of Dr. Arti Sharma (Academic Guide).
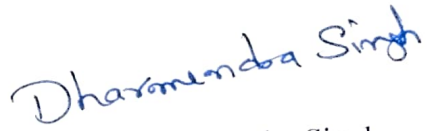
Item 5: The AAC notes that Mr. Praval Pratap Singh (Reg No: 21phdtcc01), CSIR-JRF allotted as a PhD student under the guidance of Dr. Sudip Chakraborty
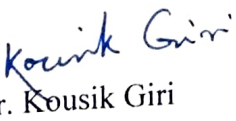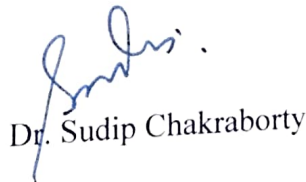
Dr. Arti Sharma
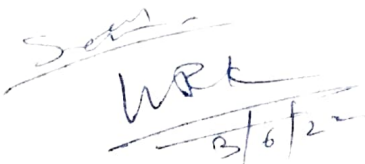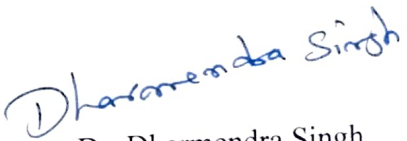
Dr. Devinder Kaur

Dr. Dharmendra Singh

Dr. Kousik Giri

Dr. Sudip Chakraborty

Dr. K. Saraboji

3/6/2

Department of Computational Sciences
Minutes of meeting of Academic and Administrative Committee

Date:- 07/06/22

Ref.No:.. CUPB/DCS/2022/156

The meeting of the Academic and Administrative Committee (AAC) of the Department of Computational Sciences (DCS) was held on 02-06-2022 at 04:00 PM.

The following members were present:
1. Dr. K. Saraboji   (Chairperson)
2. Dr. Kousik Giri
2. Dr. Sudip Chakraborty
3. Dr. Dharmendra Singh   (Convener)
4. Dr. Arti Sharma
5. Dr. Devinder Kaur   (Co-opted Member)

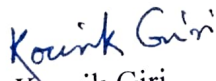The following points were discussed and resolutions made:

Item 1. The AAC notes that DCS will check the eligibility for admission of international students in M.Sc./Ph.D. program. A committee may be constituted with HoD and a senior faculty member of the department (Dr. Kausik Giri) for this purpose.

Item 2. The AAC notes that DCS requires additional (three) faculty members (guest/contractual) for the odd semester of the forthcoming academic year (2022-2023) to handle the workloads of three M.Sc. programs offered by the department (Annexure-I is enclosed).
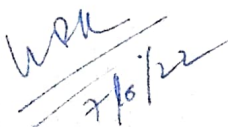

Dr. Arti Sharma

Dr. Devinder Kaur

Dr. Dharmendra Singh

Dr. Kousik Giri

Dr. Sudip Chakraborty

Dr. K. Saraboji

7/6/22

S. 5098
Date 7/6/22

02-06-2022 at 04:00 PM.

Department of Computational science

S. No.	M.Sc. Programme	Semester	Hours (T + P)	Total Hours
1	M.Sc. Bioinformatics	I	15 + 2 = 17	42
		III	5 + 20 = 25	
2	M.Sc. Chemistry (Theoretical and Computational Chemistry)	I	9 + 4 = 13	41
		III	8 + 20 = 28	
3	M.Sc. Physics (Computational Physics)	I	15 + 0 = 15	29
		III	2 + 12 = 14	
			Total hours	112
	Teachers currently in the Department (on regular basis)			5 (Specialization: two in Bioinformatics, two in Theoretical and Comp. Chem. and one in Comp. Physics)
	Additional Requirement			**3 (Specialization: one in Theoretical and Comp. Chem. one in Bioinformatics, and one in Comp. Physics)**

Tentative Work Load of the faculty (in coming odd semester, 2022)

S.No.	Faculty Name	Direct Teaching Work Load (T + P)	Project Guidance (M.Sc.) Work Load	Total Work Load
1	Dr Saraboji Kadhirvel (SK)	8 + 4		12
2	Dr Kousik Giri (KG)	3 + 10	2 (PhD) = 4	17
3	Dr Sudip Chakraborty (SC)	5 + 8	2 (PhD) = 4	17
4	Dr Dharmendra Singh (DS)	6 + 12		18
5	Dr Arti Sharma	3 + 8	2 (PhD) = 4	15
6	New faculty (Theo. Comp. Chem. spl)-1 (NF1)	9 + 6		15
7	New faculty (Bioinfo spl)-2 (NF2)	9 + 8		17
8	New faculty (Comp. Phys. spl)-3 (NF3)	11 + 2		13

Department of Computational science

Sem I, MSc Chemistry (Theoretical and Computational Chemistry): 2022 batch

Subjects	Credit	Contact Hours	Faculty
CCC.508: Scientific Programming	3	3	KG
CCC.524: Statistical Mechanics	3	3	SC
PCP.506: Mathematics for Computational Sciences	3	3	DS
PCP.527: Quantum Mechanics	3	3	DS
PCP.519: Python Programming	3	3	NF3
CCC.515: Scientific Programming Lab	2	4	KG/NF1
One DE course	3	3	NF1

Dr Arti Sharma (AS), Dr Devinder Kaur (DK), Dr Dharmendra Singh (DS), Dr Sudip Chakraborty (SC), Dr Kousik Giri (KG), New faculty (Theo. Comp. Chem. spl)-1 (NF1), New faculty (Bioinfo spl)-2 (NF2), New faculty (Comp. Phys. spl)-3 (NF3),

Sem III, MSc Chemistry (Theoretical and Computational Chemistry): 2021 batch

Subjects	Credit	Contact Hours	Faculty
CCC.529: Density Functional Theory	3	3	NF1
CCC.551: Research Methodology	3	3	NF1

Department of Computational science

Sem III, Bioinformatics: 2021 batch

Subjects	Credit	Contact Hours	Faculty
LBI.512: Biological Databases and Management Systems	3	3	NF2
CCC.551: Research Methodology	3	3	NF1
LBI.517: Biological Databases and Management Systems Lab	2	4	NF2
LBI.558: Data Mining and Machine Learning Lab	2	4	NF2
CCC.528: Computational Methods Lab	2	4	KG/NF1
CCC.555: Molecular Simulations Lab	2	4	SC
LBI.569: Computational Genomics and Proteomics Lab	2	4	AS
LBI.572: Enriching Bioinformatics	2	2	SK
LBI.600: Research Proposal	4	8	SK/AS

Sem I, MSc Physics (Computational Physics): 2022 batch

Subjects	Credit	Contact Hours	Faculty
PCP.507: Classical Mechanics	3	3	NF3
CCC.508: Scientific Programming	3	3	KG
CCC.524: Statistical Mechanics	3	3	SC
PCP.506: Mathematics for Computational Sciences	3	3	DS
CCC.515: Scientific Programming Lab	2	4	KG/NF1
PCP.527: Quantum Mechanics	3	3	DS
PCP.573: Electronics	3	3	NF3

Sem III, MSc Physics (Computational Physics): 2021 batch

Subjects	Credit	Contact Hours	Faculty
CCC.551: Research Methodology	3	3	NF1
CCC.573: Electronic Structure Theory Lab	2	4	KG/NF1
CCC.528: Computational Methods Lab	2	4	KG/NF1
CCC.555: Molecular Simulations Lab	2	4	SC
PCP.526: Computational Solid State Physics Lab	2	4	DS/NF3
PCP.569: Enrichment Course-I	2	2	NF3
PCP.600: Research Proposal	4	8	DS
PCP.573: Electronics	3	3	NF3
PCP.570: Introduction to Density Functional Theory	3	3	NF1

Department of Computational Sciences
Minutes of meeting of Academic and Administrative Committee

The meeting of the Academic and Administrative Committee (AAC) of the Department of Computational Sciences (DCS) was held on 30-06-2022 at 03:30 PM through online/physical mode.

The following members were present:

1. Dr. K. Saraboji   (Chairperson)
2. Dr. Kousik Giri
2. Dr. Sudip Chakraborty
3. Dr. Dharmendra Singh   (Convener)
4. Dr. Arti Sharma

The following point was discussed and resolution made:

Item 1. The AAC notes that all the document preparation for the NAAC visit is in progress.

Item 2. The AAC notes that students of the department of computational sciences have initiated a student technical club in the name CompQuilibrium. They will conduct various technical events like debates, quizzes, etc.

Item 3. The AAC notes that a cabin needs to be installed in labs 208 & 209 for office purposes, to keep the office materials and official/confidential documents separate and safely. This can be made with the available space without major alterations.

Item 4. The AAC notes that the department needs to procure printer cartridges for the printers available in the department.

Approved by email.

Dr. Arti Sharma

Approved by email

Dr. Dharmendra Singh

Approved by email

Dr. Kousik Giri

Dr. Sudip Chakraborty

Dr. K. Saraboji

7/7/22

DIA Office
S. No......5445......
Date......01/7/22......

Saraboji Kadhirvel <saraboji.kadhirvel@cup.edu.in>

AAC minutes- Approval - reg.

Arti Sharma <arti.abtc@gmail.com>
To: "Dr. K. Saraboji" <saraboji.kadhirvel@cup.edu.in>
Cc: Sudip Chakraborty <sudip.chakraborty@cup.edu.in>, Sudip Chakraborty <sudip.hammer@gmail.com>, Kousik Giri <kousikgiri@gmail.com>, "kousik.giri" <kousik.giri@cup.edu.in>, Dharmendra Singh <dharmendra.singh@cup.edu.in>, Dharmendra Singh <dharmendrasingh4432@gmail.com>

Thu, Jun 30, 2022 at 4:41 PM

Approved from my side
Regards
Arti

On Thu, 30 Jun 2022, 3:25 pm Dr. K. Saraboji, <saraboji.kadhirvel@cup.edu.in> wrote:

Dear All,

Kindly go through to the AAC meeting minutes and send your approval by email at the earliest.

Thank you,
Best regards,
Saraboji

The meeting of the Academic and Administrative Committee (AAC) of the Department of Computational Sciences (DCS) was held on 30-06-2022 at 03:30 PM through online/physical mode.

The following members were present:

1. Dr. K. Saraboji   (Chairperson)
2. Dr. Kousik Giri
2. Dr. Sudip Chakraborty
3. Dr. Dharmendra Singh   (Convener)
4. Dr. Arti Sharma

The following point was discussed and resolution made:

Item 1. The AAC notes that all the document preparation for the NAAC visit is in progress.

Item 2. The AAC notes that students of the department of computational sciences have initiated a student technical club in the name CompQuilibrium. They will conduct various technical events like debates, quizzes, etc.

Item 3. The AAC notes that a cabin needs to be installed in labs 208 & 209 for office purposes, to keep the office materials and official/confidential documents separate and safely. This can be made with the available space without major alterations.

Department of Computational Sciences
Minutes of meeting of Academic and Administrative Committee

The meeting of the Academic and Administrative Committee (AAC) of the Department of Computational Sciences (DCS) was held on 18-07-2022 at 03:30 PM.

The following members were present:

1. Dr. K. Saraboji   (Chairperson)
2. Dr. Kousik Giri
3. Dr. Sudip Chakraborty
4. Dr. Dharmendra Singh   (Convener)
5. Dr. Arti Sharma

The following point was discussed and resolution made:

Item 1. The AAC notes that Mr. Umesh Bhati (PhD Scholar/DBT JRF, Reg. No. 21phdbnf03) will work under the supervision of Dr. Arti Sharma. Ms. Priyanka Jeeth. D (PhD Scholar/CSIR-JRF, Reg. No. 21phdbnf02) will work under the supervision of Dr. K. Saraboji

Item 2. The AAC notes that all the faculty members are in preparation for the NAAC visit.

Item 3. The AAC notes that first-aid boxes and dustbins for each lab in the department of computational sciences need to be procured from the department's Imprest account.

Item 4. The AAC notes that lab no. 211 and 212 need display/notice boards for the research activities. This can be procured from the allocated departmental recurring budget.

Item 5. The AAC notes that teaching labs need 20 more computer chairs for the desktops for laboratory sessions.
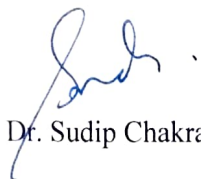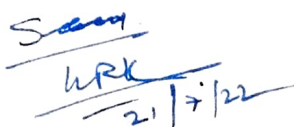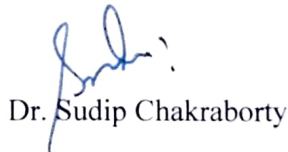

Dr. Arti Sharma   Dr. Dharmendra Singh   Dr. Kousik Giri
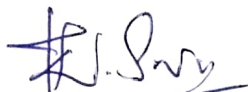
Dr. Sudip Chakraborty   Dr. K. Saraboji

21/7/22

DIA Office
S. No. 5696
Date 20/7/22

Department of Computational Sciences
Minutes of meeting of Academic and Administrative Committee

The meeting of the Academic and Administrative Committee (AAC) of the Department of Computational Sciences (DCS) was held on 22-07-2022 at 03:30 PM.

The following members were present:
1. Dr. K. Saraboji   (Chairperson)
2. Dr. Kousik Giri
3. Dr. Sudip Chakraborty
4. Dr. Dharmendra Singh   (Convener)
5. Dr. Arti Sharma

The following points were discussed and resolution made:

Item 1. The AAC notes that the department needs at least two (02) computer workstations for the M.Sc. teaching laboratory. These two workstations are required for the regular teaching and dissertation work of M.Sc. students to perform long simulations and computer intense jobs.

Item 2. The AAC notes that the department needs ten (10) more computers for the M.Sc. teaching laboratory to meet the requirement during combined labs. Further, these computers will be used for M.Sc. student's dissertation work.
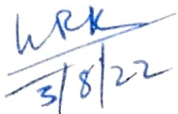

Dr. Arti Sharma   Dr. Dharmendra Singh

Dr. Kousik Giri   Dr. Sudip Chakraborty   Dr. K. Saraboji

WRK
3/8/22

S. 6059
Date 03/8/22

Department of Computational Sciences
Minutes of meeting of Academic and Administrative Committee

The meeting of the Academic and Administrative Committee (AAC) of the Department of Computational Sciences (DCS) was held on 01-08-2022 at 03:30 PM.

The following members were present:
1. Dr. K. Saraboji   (Chairperson)
2. Dr. Kousik Giri
3. Dr. Sudip Chakraborty
4. Dr. Dharmendra Singh   (Convener)
5. Dr. Arti Sharma

The following points were discussed and resolution made:

Item 1. The AAC notes that in the PhD student admission (academic session 2022-23), the department can take the eligible students with university fellowships as well. Further, AAC notes that the department can have more seats upon having eligible students who fulfill the required criteria.

Item 2: The AAC notes that each faculty in the department preferred to take two PhD students during this session (July 2022).

Item 3. The AAC notes that the DCS is in preparation for all the necessary documents for the NAAC peer team visit and will complete them in a few days.

Item 4. The AAC notes that Ms. Aditi (Reg. No. 21mslsbf07, PG student of Bioinformatics) cancelled her admission.

Item 5. The AAC notes that in the coming semester (3rd semester), one computer may be allotted to each student to carry out his or her dissertation work.

Item 6. The AAC notes that the regular attendance of PhD students' needs to be maintained at the department office.

Item 7. The AAC notes that the work progress presentation of the PhD student is mandatory every six months. This will be planned immediately.

Item 8. The AAC notes that Dr Arti Sharma needs one lab space for their research work activity.
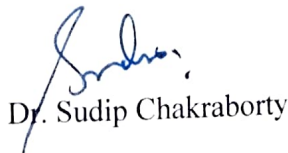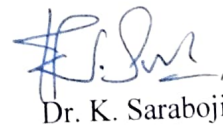

Dr. Arti Sharma   Dr. Dharmendra Singh

Dr. Kousik Giri   Dr. Sudip Chakraborty   Dr. K. Saraboji

3/8/22

S. No. 6660
3/8/22

Department of Computational Sciences
Minutes of the meeting of Academic and Administrative Committee

The meeting of the Academic and Administrative Committee (AAC) of the Department of Computational Sciences (DCS) was held on 05-08-2022 at 03:30 PM.

The following members were present:

1. Dr. K. Saraboji   (Chairperson)
2. Dr. Kousik Giri
3. Dr. Sudip Chakraborty
4. Dr. Dharmendra Singh   (Convener)
5. Dr. Arti Sharma

The following points were discussed, and resolutions made:

Item 1. The AAC notes that the following students will be nominated for the educational cum cultural trip to Andhra Pradesh under the AKAM-EBSB scheme from DCS.
1. Dhananjay (M.Sc. Theoretical and Computational Chemistry)
2. Lakshmi (M.Sc. Theoretical and Computational Chemistry)
3. Sourav Kumar Jindal (PhD Student, Dept of Computational Sciences)

Item 2. The AAC notes that PhD students Mr. Praval Pratap Singh and Ms. Priyanka Jeeth will submit their applications for transferring the credits of the research methodology course, which they have already completed in their previous institutions' PhD course work. (Credit transfer for Research Methodology course)

Item 3. The AAC notes that the DCS need to procure additional memories (RAM), VGA cables to upgrade the teaching lab computers and three Molecular Model Kits (Physical models) for teaching under the departmental recurring budget.

Item 4. The AAC notes that Dr Kousik Giri needs to procure four (nos.) DIMM RAM. Dr Sudip Chakraborty and Dr Arti Sharma need to procure four 4TB hard disks each and Dr Saraboji need to procure two 4TB hard disks for teaching and research purposes.

Item 5. The AAC notes that the DCS is in preparation for all the necessary documents for the NAAC peer team visit and will complete them in a few days.

Dr. Arti Sharma   Dr. Dharmendra Singh

Dr. Kousik Giri   Dr. Sudip Chakraborty   Dr. K. Saraboji

Department of Computational Sciences
Minutes of the meeting of the Academic and Administrative Committee

The meeting of the Academic and Administrative Committee (AAC) of the Department of Computational Sciences (DCS)was held on 30-08-2022 at 03:30 PM.

The following members were present:
1. Dr. K. Saraboji   (Chairperson)
2. Dr. Kousik Giri
3. Dr. Sudip Chakraborty
4. Dr. Dharmendra Singh   (Convener)
5. Dr. Arti Sharma

The following points were discussed, and resolutions were made:

Item 1. The AAC notes that the course allotment for the M.Sc. (IIIrd Semester) courses (2021 Batch) of the department is finalized as follows.

S. No	Name	Designation	Theory	Laboratory	Teaching Contact Hours	No. of. M.Sc. Dissertation students
1	Dr. K. Saraboji	Associate Professor & Head	1. Biological Databases & Management Systems 2. Research Methodology	Biological Databases and Management Systems Lab	10	8
2	Dr. Kousik Giri	Assistant Professor	Enrich in Chemistry	1. Electronic Structure Theory Lab 2. Computational Methods Lab	10	7
3	Dr. Sudip Chakraborty	Assistant Professor	Density Functional Theory	Molecular Simulations Lab	7	7
4	Dr.Dharmendra Singh	Assistant Professor	1. Enrichment Course-I 2. Electronics	Computational Solid State Physics Lab	9	7
5	Dr. Arti Sharma	Assistant Professor	Enriching Bioinformatics	1. Comput. Genomics & Proteomics Lab 2. Data Mining & Machine learning Lab	10	7

Item 2. The AAC notes that the MSc-Computational Physics program may be offered with more specific courses relevant to the program's specialization to enhance the employability and research opportunities of the students in the core domain. This can be discussed in CDC and BoS for future batches.

Item 3. The AAC notes that the faculties are assigned the following responsibilities.
Dr. K. Saraboji – Teaching Lab in-charge
Dr. Kousik Giri – Teaching, Exam Timetable and classrooms in-charge
Dr. Sudip Chakraborty –Alumni Coordinator (MSc & PhD Students)
Dr. Dharmendra Singh – Training & Placement Coordinator
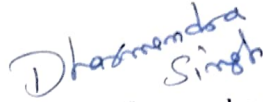Dr. Arti Sharma – Coordinator for MSc Projects, technical club activities and AAC Convener

Item 4. The AAC notes that the department is planning to conduct an alumni meet and expert lecture /webinar by this III semester.

Item 5. The AAC notes that the department needs to frame the guideless to monitor and evaluate the Research Proposal course for the MSc programs of the department.

Item 6. The AAC notes that Dr. Dharmendra Singh wants to procure two (nos.) DIMM RAM and one hard-disk expansion of a workstation from departmental recurring budget.
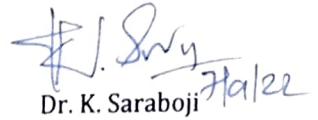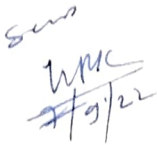
Dr. Arti Sharma

Dr. Dharmendra Singh

Dr. Kousik Giri

Dr. Sudip Chakraborty

Dr. K. Saraboji 7/9/22

Department of Computational Sciences
Minutes of meeting of Academic and Administrative Committee

The meeting of the Academic and Administrative Committee (AAC) of the Department of Computational Sciences (DCS)was held on 21-11-2022 at 04:00 PM. The following members were present:

1. Dr. K. Saraboji   (Chairperson)

2. Dr. Kousik Giri

3. Dr. Sudip Chakraborty

4. Dr. Dharmendra Singh

5. Dr. Arti Sharma   (Convener)

The following points were discussed, and resolutions were made:

Item 1. The AAC notes that the department has framed the guidelines for HoD and senior-most faculty to monitor and evaluate the Research Proposal course (III Semester) for the MSc programs of the department.

Evaluation guidelines include,
1 Background of the study
2 Problem formulation/ Objective & Motivation
3 Literature review or survey
4 Experimental Design / Methods & Procedures / Methodology/ Work plan
5 Work carried out / Preliminary data, if any
6 Presentation of data in terms of graphs, figures, tables & adherence to norms

Item 2. The AAC notes that the department is planning to conduct an online or offline NGS workshop/ webinar.

Item 3. The AAC notes that the department has planned to conduct the common practical sessions in both the labs (lab no. 208 & 209) with the help of a lab attendant.

Dr. Arti Sharma   Dr. Dharmendra Singh   Dr. Sudip Chakraborty

Dr. Kousik Giri   Dr. K. Saraboji

Item 1 —> Evaluation to be done by committee as approved at univ level. *NFLC*

23/11/22
DJA

DIA Office
S. No. 7708
Date 23/11/22

Department of Computational Sciences
Minutes of meeting of Academic and Administrative Committee

Ref.No.:- CUPB/DCS/2022/271   Date:-13/12/2022

The Academic and Administrative Committee (AAC) meeting of the Department of Computational Sciences (DCS)was held on 02-12-2022 at 10:30 AM. The following members were present:

1. Dr. K. Saraboji   (Chairperson)
2. Dr. Jagdish Kumar
3. Dr. Kousik Giri
4. Dr. Sudip Chakraborty
5. Dr. Dharmendra Singh
6. Dr. Arti Sharma   (Convener)

The following points were discussed, and resolutions were made:

Item 1. The AAC notes in the common workstation, six faculty accounts will be created in each faculty name with maximum 20 Threads. The students can access their supervisor logins by mutually sharing the facility. If the student needs to use more threads/submit more jobs, the student must obtain prior approval from the guide and HoD to ensure smooth access.

Item 2. The AAC notes that the department needs to procure printer cartridges for the printers available in the department labs and office for regular usage. (HP printer (Model: HP 12 A Q2612A) – 5 Nos., RICOH printer (Model: SP310 HS) – 2 Nos., and Brother printer (Model: TN 2365)- 1 No., Canon printer (Model: MF4820d) - 2 Nos., Brother printer (Model: DCP-L3551CDW) - 1 No.).

Item 3. The AAC notes that the department needs to procure a 64 GB dual flash drive for each faculty member (6 Nos)

Item 4. The AAC notes that the department has planned to conduct the expert lectures (offline/online mode) during December 2022-March 2023

Item 5. The AAC notes that Dr. Dharmendra Singh wants to purchase an 8 TB external hard disk and two graphics cards.
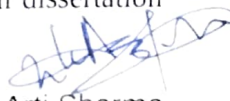
Item 6. The AAC notes that Dr. Sudip Chakraborty wants to purchase two 5 TB external hard disks and two graphics cards. In addition, Dr. Sudip Chakraborty needs to purchase an extra 8 TB storage facility.

Item 7. The AAC notes that Dr. Kousik Giri wants to purchase an 8 TB hard disk and an SSD hard disk (2 TB).

Item 8. The AAC notes that Dr. K. Saraboji wants to purchase 32 GB USB flash drives (4 Nos) and 512 GB flash drives (2 Nos).

Item 9. The AAC notes that Dr. Jagdish Kumar wants to purchase a 1TB SSD hard disk

Item 10. The AAC notes that Dr. Jagdish Kumar is interested in taking project students to guide their dissertation

Dr. Arti Sharma   Dharmendra Singh   Approved by Online
                              Dr. Dharmendra Singh   Dr. Jagdish Kumar

Kousik Giri
Dr. Kousik Giri   Dr. Sudip Chakraborty   Dr. K. Saraboji

:44 pm ✓✓

Approved

Department of Computational Sciences
Minutes of meeting of Academic and Administrative Committee

The Academic and Administrative Committee (AAC) meeting of the Department of Computational Sciences (DCS)was held on 21-12-2022 at 10:30 AM. The following members were present:

1. Dr. K. Saraboji   (Chairperson)
2. Dr. Jagdish Kumar
3. Dr. Kousik Giri
4. Dr. Sudip Chakraborty
5. Dr. Dharmendra Singh
6. Dr. Arti Sharma   (Convener)

The following points were discussed, and resolutions were made:

Item 1. The AAC notes that the Hon'ble Vice chancellor has approved organising the "Next Generation Sequencing Data Analysis" Workshop from 9- 10 March 2023, and applications for financial support will be submitted to SERB and DBT to conduct this workshop. Dr K Saraboji will submit the applications as the Convener of the event.

Item 2. The AAC notes that the department needs twenty more desktop computers for the teaching lab to conduct regular lab sessions.
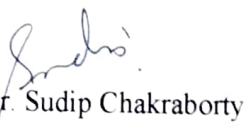
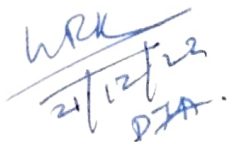Dr. Arti Sharma   Dr. Dharmendra Singh   Absent

                                                                      Dr. Jagdish Kumar

Approved by online

Dr. Kousik Giri   Dr. Sudip Chakraborty   Dr. K Saraboji 21/12/22

WRK
21/12/22
DJA.

8154
21/03/22

The following points were discussed, and resolutions were made:

Item 1. The AAC notes that the Hon'ble Vice chancellor has approved organising the "Next Generation Sequencing Data Analysis" Workshop from 9- 10 March 2023, and applications for financial support will be submitted to SERB and DBT to conduct this workshop. Dr K Saraboji will submit the applications as the Convener of the event.

Item 2. The AAC notes that the department needs twenty more desktop computers for the teaching lab to conduct regular lab sessions.

10:58 am

AAC Minutes_21Dec22.docx
Docx · 15 kB

10:59 am

@Kousik Giri Cupb @Jagadeesh 2 **Sirs, Kindly check and send your approval! Thank you**

11:00 am

Kousik Giri Cupb

Looks ok, thanks 11:20 am