

J.C. Bose University of Science & Technology, YMCA, Faridabad

(A Haryana State Government University)

(Established by Haryana State Legislative Act No. 21 of 2009 & Recognised by UGC Act 1956 u/s 22 to Confer Degrees)

Accredited 'A' Grade by NAAC

DEPARTMENT OF PHYSICS

Dated: 12/7/2021

Minutes of the 4th Board of Studies meeting held via online mode, on 6/7/2021 at 11.00 AM.

The following members were present in the meeting:

- 1. Dr. Anuradha Sharma (Chairperson)
- 2. Prof. Tilak Raj (Dean of Institutions)
- 3. Prof. H.K. Malik (External member)
- 4. Prof. Sanjeev Agarwal (External member)
- 5. Dr. Amanpal Singh (External member)
- 6. Dr. Sonia Bansal (Member)
- 7. Dr. Maneesha Garg(Member)
- 8. Dr. Arun Kumar (Member)
- 9. Dr. Ompal Singh (Member)

At the onset of the meeting, Dr. Anuradha Sharma, Chairperson, Department of Physics, welcomed the newly appointed members of the Board of Studies.

The following points were resolved during the meeting:

PHY/BOS/04/01: To confirm the minutes of the 3rd BOS held in the Department of Physics on 9/10/19 at 11.00 AM

Minutes of the 3rd BOS meeting were confirmed by the BOS.

PHY/BOS/04/02: To consider the revised syllabus of M.Sc. Physics course, modified by the department and discussed in different workshops held on 14/05/2021, 17/05/2021 and 22/05/2021 in the presence of external experts.

The syllabus was discussed in detail and the following points were recommended by the members:

- A. "Material Science-I" should be a compulsory paper for M.Sc. IV semester students and "Material Characterization Techniques" should be shifted to Material Science Specialization.
- B. Learning Outcome based Curriculum Framework (LOCF) should be incorporated in the syllabus and should be presented in the next BOS.
- C. Dean Institutions Prof Tilak Raj pointed out that the changes made in the syllabus should be highlighted as it is an essential requirement for NAAC.

PHY/BOS/02/03: PHY/BOS/03/03: To consider the minutes of 5th, 6th, 7th, 8th and 9th DRC meetings held on, 27/1/20, 23/7/20, 12/01/21, 3/3/21, 21/6/21 respectively

The minutes of all the DRC meetings were approved by the BOS.

Chairperson (Physics)

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DEPARTMENT OF PHYSICS

Date: 2/7/2021

Agenda of the 4th Board of Studies meeting to be held online on 06/07/2021 at 11.00 AM

PHY/BOS/04/01: To confirm the minutes of 3rd BOS held in the Department of Physics on 9/10/19 at 11.00 AM

PHY/BOS/04/02: To consider the revised syllabus of M.Sc. Physics course modified by the department and discussed in different workshops held on 14/05/2021, 17/05/2021 and 22/05/2021 in the presence of external experts.

PHY/BOS/04/03: To consider the minutes of 5th, 6th, 7th, 8th and 9th DRC meetings held on, 27/1/20, 23/7/20, 12/01/21, 3/3/21, 21/6/21 respectively.

PHY/DRC/04/04: Any other item with the permission of the chair.

Ashame 2 2 202) Chairperson (Physics)

CC: All concerned

JC BOSE UNIVERSITY OF SCIENCE AND TECHNOLOGY YMCA, FARIDABAD DEPARTMENT OF PHYSICS

Date: 10/10/19

Minutes of the 3rd Board of Studies meeting held in the office of Chairman, Department of Physics on 9/10/19 at 11.00 AM.

A meeting of BOS was held in the office of Chairman, Department of Physics. Following members were present in the meeting

- 1. Dr. Ashutosh Dixit (Chairman Physics)
- 2. Dr. Rishi Pal (Outside Expert)
- 3. Dr. Anuradha Sharma (Member)
- 4. Dr. Maneesha Garg(Member)
- 5. Dr. Sonia Bansal (Member)
- 6. Dr. M.K. Yadav(Member)
- 7. Dr. Praveen Goyal(Member)
- 8. Dr. Arun Kumar (Member)

Dr. Vinay Gupta and Dr. Sandeep Grover (Dean of Institutions) could not attend the meeting. The following items were resolved in the meeting:

PHY/BOS/02/01: To confirm the minutes of 2nd BOS held in the Department of Physics on 27/5/19 at 11.00 AM

Minutes of the 2nd BOS meeting were confirmed by the BOS.

PHY/BOS/02/02: To consider the minutes of 4th DRC meeting held on 7/8/19 in the office of chairman Physics

Minutes of the 4th DRC meeting held on 7/8/19 in the office of chairman Physics were confirmed.

However, the committee decided that in the light of the recommendation of DRC, the case regarding the cancellation of co-supervisor (Dr. M.P. Singh, Assistant Professor, Jamia Milia Islamia) in case of Mr. Vinod Chackoo (YMCAUST/Ph06/2k11) working under the supervision of Dr. Sonia Bansal, should be put up to the competent authority for consideration.

PHY/BOS/02/03: PHY/BOS/03/03: To consider the list of examiners of the following candidates:

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S.No	Name of the student	Registration number	Name of the Supervisor	
1	Ms. Geeta Rani	YMCAUST/Ph04/2011	Dr. M.K. Yadav	
2	Mr. Hari Shankar	YMCAUST/Ph02/2011	Dr. Anuradha Sharma	
3	Ms. Neelam Rani	YMCAUST/Ph03/2011	Dr. M.K. Yadav	
4_	Mr. Vinod Chacko	YMCAUST/PH06/2011	Dr. Sonia Bansal	

The lists of examiners for all the candidates were approved.

PHY/BOS/03/04: To consider the revised syllabus of Btech 1st year (Physics)

The board considered and approved the recommendations of the syllabus revision workshop held by the department on 9/10/19. However board is of the view that open elective course for B.Tech. students should be floated by the department on the following topics:

- 1. Nanotechnology
- 2. Photonics
- 3. Nuclear Technology
- 4. Astrophysics

PHY/BOS/03/05: Any other item with the permission of the chair.

Dr. Parveen Goyal, CBS coordinator of the department presented the list of examiners for B.Tech., B.Sc. and M.Sc. students. The list was approved by the board.

Dr. Arun Kumar

Dr. Maneesha Garg

Dr. Praveen Goyal

Dr. Sonia Bansal

Dr. M.K. Yadav

Dr. Anuradha Sharma

Dr. Rishi Pal

Dr. Ashutosh Dixit

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Dated: 26/05/2021

Department of Physics

Minutes of 'Syllabus Revision workshop' held online on 14/05/2021, 17/05/2021 and 22/05/2021

In continuation with meeting held on 20/04/2021, and after taking into consideration the suggestions from internal experts, MSc Physics syllabus with proposed specializations was sent to external experts for review by email.

Prof. Fakir Chand, Department of Physics, KUK; Dr. Ravinder Kumar, Department of Physics, DCRUST Murthal and Prof. Manish Kumar, School of Physical Sciences, JNU were external experts for reviewing the syllabus of MSc Physics as approved by competent authority.

As per their availability, three separate meetings were held on 14/5/2021 (3:00 pm and 4:00 pm) and 17/05/2021 (4:00 pm) as part of "Syllabus revision workshop". A departmental meeting was held on 22/05/2021 (3:00 pm) to finalize the revised syllabus after getting the suggestions from experts.

Meetings on 14/05/2021 for specializations 'Electronics' and 'Nuclear Physics' at 3:00 pm and 4:00 pm, respectively

Meetings were attended by Chairperson, Department of Physics; Coordinators, MSc Physics syllabus revision and respective Specialization/subject coordinators.

- ➤ Prof. Fakir Chand from Department of Physics, Kurukshetra University was the external expert for Electronics specialization.
- ➤ Dr. Ravinder Kumar from Department of Physics, DCRUST, Murthal was the external expert for Nuclear Physics specialization.
- > Dr. Yogita presented revised scheme and syllabi of each subject before the external experts and detailed deliberations were done on the subject matter.
- ➤ Prof. Fakir Chand shared some remarks regarding syllabus of Classical Mechanics, Quantum Mechanics, Experimental and computational Physics, along with his suggestions pertaining to Electronics core paper.
- > Dr. Ravinder Kumar suggested for inclusion of Neutron Physics and Astro-Physics in Nuclear Physics specialization curriculum along with some changes in specialization lab.
- ➤ Their suggestions were well noted and meetings ended with a vote of thanks by Dr. Sonia to everyone present.

Meeting on 17/05/2021 for specializations 'Materials Science' at 4:00 pm

- ➤ Prof. Manish Kumar, School of Physical Sciences, JNU was the external expert for Materials Science specialization.
- ➤ This meeting was attended by all the faculty members of Department of Physics.
- ➤ He emphasized upon the fact that references of each and every topic mentioned in syllabus should be available in the book cited in the reference section.
- ➤ He also suggested changes in the subjects viz. Quantum mechanics II, Electrodynamics along with Experimental and Computational Physics.
- ➤ His suggestions were well received and the meeting ended with a vote of thanks by Dr. Sonia to one and all present.

Departmental Meeting on 22/05/2021 at 3:00 pm

After incorporating suggestions as advised by external experts in the previous meetings and updating the syllabus, a final departmental meeting was held on 22/05/2021 at 3:00 pm.

- > Dr. Yogita presented the updated syllabus to all the faculty members for review.
- > After detailed deliberations, it was decided that 'Quantum Mechanics II' will be taught in Semester II instead of Semester III.
- Also, 'Atomic and Molecular Physics' was shifted to semester III.
- ➤ In Electronics specialization, 'Microprocessor' was swapped with 'Digital Electronics'.
- Suggestions were received regarding lab syllabus as well.
- > All faculty members were requested to update their respective syllabus with proper referencing and citations.
- Meeting ended with a vote of thanks by Dr. Sonia to all the faculty members for their kind support.

Further, these minutes along with revised syllabus are being forwarded to Chairperson, Department of Physics for her kind perusal and necessary action with following additional changes:

- 1. Subject 'Experimental and Computational Physics' has been replaced by 'Vacuum Science and Thin film technology' (as conveyed by subject coordinator with due approval of Chairperson, Department of Physics).
- 2. Open Elective course 'Physics and our World' offered by Department of Physics has been replaced by 'Energy harvesting and storage devices' (as prepared by Dr. Anurag Gaur with due approval of Chairperson, Department of Physics).

-Sd-

(Dr. Sonia and Dr. Yogita) Coordinators MSc Syllabus Revision Workshop

-Forwarded to Chairperson, Department of Physics along with a copy of revised syllabus



J.C. BOSE UNIVERSITY OF SCIENCE & TECHNOLOGY YMCA, FARIDABAD (HARYANA)- 121006 (Established by Haryana State Legislative Act No.21 of 2009)

Minutes of 5th DRC in respect of Department of Physics held on 27.01.2020 at 11.00 am.

Present:

- 1. Dr. Anuradha Sharma
- 2. Dr. Sonia Bansal
- 3. Dr.M.K. Yadav
- 4. Dr. Praveen Kumar
- 5. Dr. Arun Kumar
- 6. Prof. A.C. Sharma
- 7. Prof. A.S. Mann

Prof. R.K. Mudgil and Dr. Maneesha Garg could not attend the meeting.

At the outset, Chairperson welcomed all the members of the Committee. After that the agenda note was taken up and the decisions taken as under:

Item No.1: To Confirm the Minutes of Meeting of 4th DRC held on 06.08.2019.

The minutes of 4th DRC meeting are confirmed by the Committee.

Item No.2: To Consider and Approve the Progress Reports for Ph.D Scholars.

The Departmental Research Committee considered and approved the progress reports of the following candidates with minor modifications.

- 1. Mr. Bhupender
- 2. Ms. Anita
- 3. Ms. Krishna
- 4. Ms. Afsana

However, the Committee is of the view that the Supervisor / Co-Supervisor of the Research Scholars must be present at the time of his or her presentation.

Item No.3: To Consider the Request of Mr. Bhupender Singh Regn. No. 17-YMCA-911001 to convert his PhD from full time to part time.

The item is deferred for next DRC.

Item No.4: To Apprise the decision of Case of Mr. Vinod Chackoo, PhD Scholar Regn. No. YMCAUST/PH06/2011

Noted.

Item No.5: To Consider the Case of Ms. Geeta Rana Regn. No. YMCA/Ph04/2011 for Extension of two months for thesis submission

The case of Ms. Geeta Rana Regn. No. YMCA/Ph04/2011 is considered by the members and two months extension is recommended by the Committee.

The meeting ended with a vote of thanks to Chair.

Chairperson(Physics)



J.C. BOSE UNIVERSITY OF SCIENCE & TECHNOLOGY YMCA, FARIDABAD (HARYANA)- 121006

(Established by Haryana State Legislative Act No.21 of 2009)

Minutes of 6th DRC in respect of Department of Physics held online through Cisco WebEx platform on 23.07.2020 at 09.30 am

Present:

- 1. Dr. Anuradha Sharma
- 2. Dr. Sonia Bansal
- 3. Dr.Maneesha Garg
- 4. Dr. Praveen Kumar
- 5. Dr. Arun Kumar
- 6. Prof. A.C. Sharma
- 7. Prof. A.S. Mann

Prof. R.K. Mudgil and Dr. M.K. Yadav could not attend the meeting.

At the outset, the Chairperson welcomed all the members of the Committee. After that the agenda note was taken up and the decisions were taken as under:

Item 6.1: To consider the synopsis of the following candidates for registration of Ph.D. under the Department of Physics

- Ms.Shewta 1.
- Ms.Pooja Singh 2.
- Ms. Tamanna Sharma 3.
- Ms.Aarti

The candidates presented the pre-registration presentation seminars with the following topics:

Name of the		Name of Supervisor/Co-supervisor	Title of the Thesis
Ms. Shewta Registration YMCA-911005	No.	Dr. Arun Kumar(Supervisor) Assistant Professor Department of Physics JC Bose University of Science and Technology, YMCA Faridabad	Tailoring optoelectronic properties of 2D transition metal dichalcogenides for energy harvesting applications
		Dr. Vinamrata Singh (Co-supervisor) Ambedkar Institute of Advanced Communication Technologies and Research (AIACT&R), Govt. of NCT of Delhi	

Ms. Pooja Singh Registration No. YMCA-911003	Dr. Arun Kumar (Supervisor) Assistant Professor Department of Physics JC Bose University of Science and Technology, YMCA Faridabad Dr. Swati Sharma (Co-Supervisor) Assistant professor Department of Metallurgical and Materials Engineering Malaviya National Institute of Technology, Jaipur	Mechanical and Tribological Properties of Carbon Reinforced Polymer Nanocomposites
Ms. Tamanna Sharma Registration No. 19- YMCA-911007	Dr. Maneesha Garg Associate Professor Department of Physics JC Bose University of Science and Technology, YMCA Faridabad	Study of Optoelectronic, Dielectric Relaxation and Conduction behaviour of Polystyrene Nanocomposites
Ms. Aarti Registration No. 19- YMCA-911001	Dr. Parveen Kumar Assistant Professor Department of Physics JC Bose University of Science and Technology, YMCA Faridabad	Study of Charge Transport Mechanism in Polypyrrole based Nanocomposites for Electrical Applications

The committee approves the synopsis of the above candidates with minor modifications and candidates are suggested to submit the modified copy within 15 days.

Dr. Arun Kumar

Dr. Praveen Goyal

Dr. Maneesha Garg

Dr. Sonia

Dr. A.C. Sharma

Dr. A.S. Mann

Dr. Anuradha Sharma

J C BOSE UNIVERSITY OF SCIENCE AND TECHNOLOGY YMCA, FARIDABAD

DEPARTMENT OF PHYSICS

Date: 12/01/2021

Minutes of the DRC meeting held in the office of chairperson, Department of Physics on 12/01/2021 at 11.30 AM

A meeting of DRC was held in the office of Chairperson, Department of Physics. Following members were present in the meeting

- Dr. Anuradha Sharma (Chairperson Physics) 1.
- Prof. Tilak Raj (Outside Expert) 2.
- Dr. Sonia Bansal (Member)
- Dr. Maneesha Garg (Member) 4.
- Dr. Parveen Kumar (Member) 5.
- Dr. Parmod Kumar (Member) 6.
- Dr. Yogita (Member) 7.

Item 7.1: To welcome the members of new DRC constituted on 22/12/2020

At the onset of the meeting, the chairperson welcomed the new members of the DRC.

Item No 7.2: To Confirm the Minutes of Meeting of 6th DRC held on 23/07/2020.

The minutes of the 6th DRC were confirmed.

Item No 7.3: To Consider the formation of Research Advisory Committee (RAC) for research scholars

To mentor the students pursuing Ph.D. in the department, following research advisory committee is formed

Committee 1:

- Dr. Sonia Bansal 1.
- Dr. Parveen Kumar 2.
- Prof. R P Chauhan, NIT Kurukshetra 3.

Committee 2:

- Dr. Maneesha Garg 1.
- Dr. Yogita 2.
- Dr. Parmod Kumar 3.
- Dr. K. Asokan, Scientist-G, Inter University Accelerator Centre (IUAC), New Delhi 4.

Committee 3:

- Dr. Anuradha Sharma 1.
- Dr. M.K. Yadav
- Dr. Arun Kumar 3.
- Dr. Amitanshu Pattanaik, Senior Scientist, DTRL, DRDO, New Delhi 4.

As per the Ph.D. ordinance 2016 of the University, RAC has the following responsibilities

- To review the research proposal and finalize the topic of research
- To guide the research scholar to develop the study design and methodology of research and to periodically review and assist in the progress of the research work of the
- This committee will monitor the students throughout the Ph.D. tenure and at least research scholar. conduct two meetings in the month of March and September.
- This committee should also be present at the pre-submission of the student.

Item No7.4: Any other item with the permission of the chair

Dr. Sonia presented the case of Mr. Shital Prasad (YMCAUST/Ph21/2012), her Ph.D. scholar. She updated the committee that he has requested for pre-submission of the thesis on

As per the records, the candidate has submitted his thesis for pre-submission on 24th February 2020 after completing 7 years of registration (including one year of extension). The case was forwarded to Dean R&D, but the case was denied as the minimum requirement for presubmission (two papers in peer reviewed journals) was not met by the candidate. However on 25/11/2020, the candidate submitted that he has now published two papers in journals and he the Vice Chancellor through may be allowed for pre-submission.

The committee recommended that his case may be forwarded to Dean R&D for further decision after the proper authentication of the papers.

Dr. Parmod Kumar

Dr. Parveen Goyal

Dr. Sonia Bansal

Dr. Tilak Raj

JC BOSE UNIVERSITY OF SCIENCE AND TECHNOLOGY YMCA, FARIDABAD DEPARTMENT OF PHYSICS

Date: 8/03/2021

Minutes of the Eighth DRC meeting held in the office of chairman, Department of Physics on 03/03/2021 at 3.00 PM

A meeting of DRC was held in the office of Chairperson, Department of Physics. Following members were present in the meeting

- 1. Dr. Anuradha Sharma (Chairperson Physics)
- 2. Dr. Sonia (Member)
- 3. Dr. Maneesha Garg (Member)
- 4. Dr. Parveen Kumar (Member)
- 5. Dr. Yogita (Member)
- 6. Dr. Parmod Kumar(Member)

Prof. Tilak Raj (outside expert) could not attend the meeting

Item No8.1: To Confirm the Minutes of Meeting of 7th DRC held on 12/01/2021 at 11.30 AM.

The minutes of the 7th DRC were confirmed.

Item No8.2: To consider the minutes of the Research Advisory Committee (RAC) meetings held on 8/2/2021, 13/02/2021 and 17/02/2021.

The minutes of RAC meetings were approved. Following conclusions are made from the RAC meetings

- 1. Six monthly progress reports of Ms. Krishna, Ms. Anita, Mr. Bhupender Singh, Ms. Afsana, Ms. Arti, Ms. Shweta, Ms. Pooja Singh and Ms. Tamanna Sharma were put for the consideration of RAC and the committee approved the same.
- 2. Ph.D. registration seminar of Ms. Ankita and Ms. Priyanka was held and following was approved

Γ	S.	Name	Name	of	the	Name of the co-	Topic
1	No		Supervisor			supervisor	
t	1	Ms. Priyanka	Dr. Sonia			Dr. Preet Kaur	Design,
	1	1015. 1 11)					Fabrication and
							Testing of Patch
							Antenna Sensors

2	Ms. Ankita	Dr. Parmod Kumar	 "Bandgap Tuning and Magnetism in
	-		Cerium Oxide
			Based
		Y	Nanocomposites"

Item 8.3: To consider the list of examiners for thesis submission of Mr. Bhupender Singh (17-YMCA-911001) research scholar of the Physics Department.

List of examiner for Mr. Bhupender Singh (17-YMCA-911001) was approved and forwarded to Board of Studies for further approval.

Dr. Parmod Kumar

Dr. Yogita

Dr. Parveen Kumar

Dr. Sonia

Dr. Maneesha Garg

Dr. Anuradha Sharma

JC Bose University of Science and Technology, YMCA Faridabad

Department of Physics

Date: 23/6/2021

Minutes of 9th DRC meeting held online on 21/6/2021 at 3.30 PM. Following members were present in the meeting:

- 1. Dr. Anuradha Sharma (Chairperson)
- Dr. Sonia Bansal (Member)
- Dr. Maneesha Garg (Member)
- 4. Dr. Parveen Goyal (Member)
- 5. Dr. Yogita (Member)
- Dr. Parmod Kumar (Member)

Prof. Tilak Raj (outside expert) could not attend the meeting as he was on leave.

Item no 9.1: To confirm the minutes of the 8th DRC meeting held on 03/03/2021 at 3.00 PM

The minutes of the 8th DRC meeting were confirmed.

Item 9.2: To consider the pre-submission seminar report of Mr. Bhupender Singh (17-YMCA-911001) held on 17/3/2021 for permission to submit the thesis.

The pre-submission of the candidate was done on 17/3/2021 but due to COVID the DRC could not be conducted. Thus committee recommends that his time period (i.e. atleast two months after DRC) may be considered from the date of pre-submission.

The pre-submission report was approved by DRC and recommended to BOS for consideration.

Dr. Parmod Kumar Dr. Yogita Dr. Parveen Goyal

Dr. Maneesha Garg Dr. Sonn Bansal