SHRI MATA VAISHNO DEVI UNIVERSITY
SUB POST OFFICE – 182320, J & K
College of Sciences
School of Mathematics

MINUTES OF THE FOURTH MEETING OF BOARD OF STUDIES OF SCHOOL OF MATHEMATICS, HELD ON 11TH OF FEBRUARY, 2013 IN ROOM NO. D 108

PRESENT

1.	Prof. V. K. Bhat Director, School of Mathematics & Dean, College of Sciences.	Chairman
2.	Prof. A. P. Singh, Professor and Head, Department of Mathematics, Central University of Rajasthan.	Expert Member
3.	Prof B. S. Komal (Retired Professor) Department of Mathematics, University of Jammu	Expert Member
4.	Dr. A. K. Das, Assistant Professor, SOM	Member & Convener
5.	Dr. Sharda Putukuchi (Representing Director, SBT) Asstt. Prof., SBT SMVD University	Member Invitee
6.	Dr. Ajay Sharma Lecturer, SOM	Member
7.	Dr. Kuldip Raj Lecturer, SOM	Member
8.	Dr. Sandeep Bhougal Lecturer, SOM	Member
9.	Dr. Rakesh Kumar Lecturer, SOM	Member
10.	Dr. Sandeep Sharma Assistant Professor, SOM	Member
11.	Mr. Surender Singh Assistant Professor, SOM	Member

Dr. Suparn Sharma, Assistant Professor, SOBE could not attend the meeting.

4.1 Welcome and Introduction

The Chairman of the Board welcomed all the members to the fourth meeting of Board of Studies and thanked Prof. A.P. Singh & Prof. B. S. Komal for visiting the University in spite of their busy schedule to attend the meeting.

26/02/2013

4.2 Confirmation of the minutes of the 3rd BOS meeting

The Board confirmed the minutes of the 3rd meeting of the Board of Studies held on 24th February, 2012.

4.3 Review of Academic Activities

Dr A. K. Das convener, BOS gave a presentation about the academic activities of the school. A brief review is given here under:

(a)   Admission:

Details of Admission

S.No.	Programme	Academic Session	No. of students Admitted
1	M. Sc. Mathematics	2012-2013	20
2	Ph. D	-	02

Total number of students in the Ph. D Programme is 11.

(b)   Teaching:

School of Mathematics offers courses in Applied Mathematics to different streams of B.Tech (Computer Science & Engineering, Electronics & Communication Engineering, Mechanical Engineering, & Industrial Biotechnology) and has a two year full time M.Sc (Mathematics) Program. The courses in M. Sc.(Maths.) are interdisciplinary in nature. In addition to courses from pure Mathematics, the program includes courses from Theoretical Computer Science, Operational Research, Economics. This year student opted Financial Mathematics as an elective paper. Every 3rd semester student of M.Sc. (Mathematics) submits a report of a minor project under the supervision of a faculty member. This structure was appreciated by the Expert Members for its being interdisciplinary and application oriented.

Apart from teaching to B.Tech. & M.Sc. students, the School offers ten different papers for Ph.D. course work.

The School has a library and computer lab. The library of the school is supported by NBHM (National Board for Higher Mathematics). The Computer Lab. of the school is used by M.Sc. students and research scholars.

(c)   Publications/Conferences/visits by Faculty members:

Apart from regular teaching all faculty members of the school are actively involved in research work. Total number of research papers published in National & International Journals is more than 200. Faculty members regularly attend conferences, seminars and workshops at National & International level.

(i) Research Papers Published during March 2012-February 2013

1. V. K. Bhat, Ideal Krull symmetry of skew polynomial rings, Beiträge Algebra Geom., Vol.53(2) (2012), 507-514.
2. V. K. Bhat, Kiran Chib and Smarti Gosani, Commutativity of prime near- rings, East-West J. Math., Vol. 14(1) (2012), 13-19.
3. Neetu Kumari and V. K. Bhat, Minimal prime ideals of 2-primal rings and their extensions, Int. J. Algebra , Vol. 6(30) (2012), 1449-1456.
4. V. K. Bhat, Completely Prime ideals of Skew-Laurent ring, Lobachevskii J. Math., Vol. 34(1) (2013), 99–105.
5. A. K. Das, A note on spaces between normal and κ-normal spaces, Filomat 27:1 (2013), 80–83.
6. Ajay K. Sharma, Generalized composition operators between weighted Bergman spaces, Acta Sci. Math.,78(2012) 187-211.
7. Ajay K. Sharma, S. Ueki, Composition operators from Nevanlinna type spaces to Bloch type spaces, Banach J. Math. Anal. 6 (2012) 112-123.
8. Stevo Stevic, Ajay K. Sharma, Generalized composition operators on weighted Hardy spaces, Appl. Math. Comput., 218 (17) (2012) 8347-8352.
9. Stevo Stevic, Ajay K. Sharma, Integration type operators between weighted Bergman spaces, J. Comput. Anal. Appl. 14 (2012) 1339-1344.
10. Stevo Stevic, Ajay K. Sharma, Composition operators from Bergman Privalov spaces to Zygmund spaces, Ann. Polon. Math. 105 (2012) 77-86.
11. Raj Kuldip and Sharma Sunil K., Some multiplier sequence spaces defined by a Musielak-Orlicz function in n-normed spaces, New Zealand Journal of Mathematics, 42(2012), 45-56.
12. Raj, Kuldip and Sharma, Sunil K., Some generalized difference double sequence spaces defined by a sequence of Orlicz-function, Cubo, A Mathematical Journal, 14(2012), 167-189.
13. Raj Kuldip and Sharma Sunil K., Some multiplier Double sequence spaces, Acta Mathematica Vietnamica ,37(2012),391-406.
14. Raj, Kuldip and Sharma, Sunil K. Composition Operator on Musielak-Orlicz spaces of Bochner type, Math. Bhomica ,137(2012,)449-457.
15. Raj, Kuldip and Sunil K. Sharma, Some vector-valued sequence spaces defined by a Musielak-Orlicz function,Romanian Journal of · pure and Applied Mathematics,LVII,4(2012).
16. Kumar, Sunil, Bhougal, Sandeep, Sharma, Rahul Kumar, and Raj, Kuldip.(2012): Estimation of Population Mean using ranked set sampling. International Journal of Research in commerce, IT and Management, Vol.   No. 2(2012), No. 9, 139-141.
17. Kumar, Sunil., Bhougal, sandeep., and Gupta, Rahul,. (2012): Generalised estimators for estimating Population Mean in the presence of Non-response. International Journal of Computing. Vol. 2, Issue 3, july 2012, 672-686.
18. Rakesh Kumar, Economic analysis of an M / M / c / N queuing model with balking, reneging and retention of reneged customers, OPSEARCH, doi: 10.1007/s12597-012-0114-1. (Online First)
19. Rakesh Kumar, A Catastrophic-cum-restorative queuing problem with   correlated input and impatient customers, International Journal of Agile   Systems   and Management, Vol.5, No.1, (2012) 122-131.
20. Rakesh Kumar, A catastrophic-cum-restorative queuing system with correlated batch arrivals and general service time distribution, Pakistan Journal of Statistics and Operation Research, Vol. 8, No. 1, (2012) 43-53.

21. Rakesh Kumar and Sumeet Kumar Sharma, A Multi-Server Markovian Queuing System with Discouraged Arrivals and Retention of Reneged Customers, International Journal Operations Research, Vol. 9, No. 4, (2012) 173-184.

22. Rakesh Kumar and Sumeet Kumar Sharma, Queuing with retention of reneged customers, International Journal of Mathematical Models and Methods in Applied Sciences, Vol. 6, No. 7, (2012) 819-828.

23. Sandeep Sharma and Tehseen Abas, American Journal of Mathematics and Mathematical Sciences, Volume 1, No 1, July 2012, Pg. 69-73.

24. P. K Bhatia, S. Singh, Three families of generalized fuzzy directed divergence, Advanced Modeling and Optimization, Volume 14, Number 3, 2012 (ISSN: 1841-4311)

(ii) Conferences attended by faculty members during March 2012-February 2013:

1. V. K. Bhat, Transparency of skew polynomial rings over Noetherian rings, Int. Conf. On commutative rings, integer-valued polynomials and polynomial functions, University of Technology, Graz, Austria (Dec. 19 – 22, 2012).

2. A. K. Das, On Decompositions of normality, 8th JK Science Congress, University of Kashmir (16th-19th September, 2012).

3. A. K. Das, On some simultaneous generalizations of normality and regularity, International conference on Frontiers of Mathematical Sciences with Applications (ICFMSA-2012), Kolkata (7th - 9th December, 2012).

4. A .K. Das, On some Factorizations of normality via generalizations of regularity, International Conference of FIM on Interdisciplinary Mathematics, Statistics and Computational Techniques 2012, Punjab University, Chandigarh during (15th - 17th December, 2012).

5. Rakesh Kumar, 'Selection of Spoilage Prevention Strategies in Supply Chains Using Queuing-Theoretic Approach' National Seminar on Strategic Dimensions of Value Chain for Sustainable Development, at College of Management, SMVD University, Katra on 1st September 2012.

6. Rakesh Kumar, 'A Markovian Queuing Model for Retention of Impatient Customers' National Conference on Mathematical Analysis and Modelling, at SRM University, Modinagar, Ghaziabad, March 30-31, 2012.

7. Rakesh Kumar, 'An M/M/1/N queuing model with retention of reneged customers and balking' AICTE Sponsored Seminar on Applications of Mathematics in Engineering Sciences, N.C. College of Engineering, Panipat, March 17, 2012.

8. S. Bhougal, First International Conference of FIM on Interdisciplinary Mathematics, Statistics and Computational Techniques FIM XXI (IMSCT-2012) at Punjab University, Chandigarh (Dec 15-17, 2012).

9. Sandeep Sharma, LP-Sasakian Manifolds, National Conference on Algebra, Analysis and their Applications, 18-19, Aug., 2012, Govt MAM College, Jammu, J&K.

10. Sandeep Sharma, On LP-Sasakian Manifold satisfying certain conditions on the Projective Curvature, International Conference on Differential Geometry, Functional Analysis and Applications, sept. 8-10,2012, Department of Mathematics, Jammia Millia Islamia, New Delhi-110025,India.

11. Sandeep Sharma, On LP-Sasakian Manifold satisfying certain conditions on the Conharmonic Projective tensor, National Seminar on Applications of Mathematics to Science and Technology, Sept.29, 2012, Dept. of Mathematics, BGSB University Rajouri, J&K, India.

12. S. Singh, On Fuzzy Concepts in Engineering & Technology, AICTE Sponsored National Seminar on Applications of Mathematics in Engineering Sciences organized by Deptt. Of ASH, NCCE Israna, Haryana on 17th March,2012.

13. S. Singh, On Some Economic Applications of Shannon's Measure' in two days National workshop on Mathematics and its Applications (UGC- Funded) at DCR University of Science and Technology, Murthal, Sonepat (Haryana).

14. S. Singh, New Measure of Fuzzy Directed Divergence and its Application in Image Segmentation' in National Conference on Machine Intelligence Research and Advancement, 2012 at SMVDU, Katra from 21st December, 2012 to 23rd December, 2012.

15. Kuldeep Raj, National Conference on Machine Intelligence Research and Advancement, 2012 at SMVDU, Katra from 21st-23rd, December, 2012.

(iii) Orientation courses attended during March 2012- February 2013:

1. Dr. Sandeep Bhougal attended General Orientation program from 04.07.2012 to 31.07.2012 (24 days) organized by University of Jammu.

2. Dr. Rakesh Kumar attended the General Orientation Course at UGC-Academic Staff College, University of Jammu, Jammu w. e. f. November 20, 2012 to December 17, 2012.

3. Dr. Sandeep Sharma attended the General Orientation Course from 10th Jan. to 08th Feb., 2013 at Academic Staff College,University of Jammu.

4. Mr. S. Singh attended four weeks Orientation programme from 21st Nov.,2012 to 18th Dec., 2012 at UGC-ASC, BPSMV, Khanpur Kalan (Sonepat), Haryana.

(iv) Foreign Visits (Academic) during March 2012-February 2013:

Prof V. K. Bhat visited University of Technology, Graz, Austria during Dec. 19 – 22, 2012 to attend Int. Conf. On commutative rings, integer-valued polynomials and polynomial functions.

(v) Guest Lectures Delivered during March 2012-February 2013:

Prof V. K. Bhat delivered
1. an invited lecture entitled "Associated Prime Ideals of Skew Polynomial rings" at DST- Centre for Interdisciplinary Mathematical Sciences, Banaras Hindu University (March 2012).
2. a guest lectures on "Field extensions and splitting fields" at Centre for Mathematical Sciences, Banasthali University, Rajasthan (October 2012).
3. a guest lectures on "Applications of algebraic structures in cryptography" at Department of Mathematics, Central University of Rajasthan (October 2012).

(d)   Thesis Submitted:
One Ph.D. thesis in Mathematics of Mr. Sunil Kumar Sharma has been submitted in 2012.

26/2/2013

(e)   Research Projects / Grants:

At present the school has four Research Projects. The details are as under:

1. PR-29 - Annual Grant for library from NBHM, DAE, Government of India (GOI)
2. PR-40 (PI-Dr. Ajay Sharma) Composition Operators and Dynamics Valued functions.   NBHM, DAE, Government of India.
3. PR-46 (PI- Dr. V. K. Bhat) 'Transparency of Skew Polynomial Rings over Noetherian   Rings.' NBHM, DAE, Government of India.
4. PR-50 (PI- Dr. V. K. Bhat) 'Associated Prime ideals & minimal Prime Ideals of Skew   Polynomial Rings' UGC.

(f)   Routine matters of the school:

(i)   Student Faculty Committee Meetings: To discuss the matters of students pertaining to teaching and problems (if any) regular SFC meetings are held. The committee includes faculty members and student representatives from the school. For the current semester the matters concerning book recommendation for Central library, School Library, course coverage, attendance and conduct of seminar etc were discussed in the SFC meetings held on 7th September and 26th October, 2013.

(ii)   Weekly faculty meetings: To discuss the routine matters of the school with respect to teaching, research, conduct of exams, procurement of books and journals, purchase of equipment, requisitions for furniture, submission of reports etc. regular weekly faculty meetings are held. During 2012-13 these meetings were held on every Wednesday at 12 Noon (working day). These meetings are held without any notice and time table is finalized in such a way that all faculty members are present. During this time students go to get the books issued from the school library.

(g)   Other Activities:

(i) Student Seminar: The school conducts a weekly Student Seminar attended by all M.Sc (Mathematics) students, Research Scholars & Faculty members. In this seminar one student from 1st year M.Sc. and one student from 2nd year M.Sc. speak on topics suggested by course coordinators. The topics are application oriented.

(ii)Research Scholars Seminar: A weekly seminar is conducted by the School for research scholars. In this seminar one research scholar delivers a presentation on a topic in the area of his/her research. It is mandatory for every research scholar to deliver at least one seminar presentation in a semester.

(iii)   Guest Lectures: The school regularly organizes Guest Lectures by Mathematicians from other Universities for students & Research Scholars. Prominent among those who visited the school during 2011-12 and delivered guest lectures include Prof. Hari M. Srivastava & Prof. Rekha Srivastava of Dept. of Mathematics and Statistics, University of Victoria, Canada. They

delivered Special Guest Lecture in Memory of Srinivasa Ramanujan during March 17-21, 2012.

The Board noted the reported position and all members of the Board including Expert Members expressed satisfaction on the progress made by the school in terms of course development, teaching, research & other related activities.

4.4 Prof. A. P. Singh, HOD, Mathematics, Central University of Rajasthan, Expert Member suggested that the School must develop and introduce some course for computer lab work which may include mathematical tools such as MATLAB and MATHEMATICA. Dr. A. K. Das has taken the responsibility to prepare this course which will be discussed in the next BOS meeting.

4.5 During discussion of courses available for Ph.D. course work, Mr. Surender Singh suggested that School of Mathematics may develop its own research methodology course for Ph.D. course work. The Board appreciated the suggestion and gave the responsibility to Mr. Singh to prepare the course "Research Methodology in Mathematical Sciences" in consultation with other faculty members which will be discussed in the next BOS meeting.

4.6 Extension of time period for Ph.D. work of Neetu Kumari:

The application of Ms. Neetu Kumari (2007PHDSPM03) seeking extension of Ph.D. work for two more years was discussed in the meeting. Ms. Neetu Kumari was registered for Ph.D. programme under the supervision of Prof. V. K. Bhat in the School of Mathematics on 24th August 2007 and completed 5 years on 23rd August 2012. Her proposed topic of research is **"A study on Pseudovaluation rings and their extensions"**.

Keeping in view the progress made by her, the Board approved the extension of Ph.D. work of Neetu Kumari for two more years w.e.f. 24th August, 2012.

The Meeting ended with a vote of thanks to the Chair.

26/02/2013

(A. K. Das)
Convener, BOS, SOM

No: SMVDU/SOM/2013/1029
Dated: 26.02.2013

To
Dean, College of Sciences,

CC:
- Chairman, CRC of COS for needful with respect to **4.6.**
- Registrar, for information & needful please.
- PS to VC for kind information of the Hon'ble Vice Chancellor.
- All members.
- Concerned File.