

**MINUTES OF THE 50<sup>TH</sup> MEETING OF THE SCHOOL BOARD OF THE SCHOOL OF SCIENCES HELD ON 29<sup>TH</sup> SEPTEMBER, 2014 AT 10.00 A.M. IN THE CONFERENCE ROOM OF BLOCK D, IGNOU, MAIDAN GARHI, NEW DELHI – 110068.**

The following members were present:

1. Prof. Vijayshri, Director (SOS), Chairperson
2. Prof. Oommen V Oommen, Chairman, Kerala State Biodiversity Board, Govt. of Kerala
3. Prof. M.H. Qureshi, Jamia Millia Islamia
4. Prof. J.P. Shrivastava, University of Delhi
5. Prof. S.C. Garg, SOS, IGNOU
6. Prof. B.S. Saraswat, SOS, IGNOU
7. Prof. S.S. Hasan, SOS, IGNOU
8. Prof. Sunita Malhotra, SOS, IGNOU
9. Prof. Poornima Mital, SOS, IGNOU
10. Prof. Sujatha Varma, SOS, IGNOU
11. Prof. Geeta Kaicker, SOS, IGNOU
12. Prof. Jaswant Sokhi, SOS, IGNOU
13. Prof. S.R. Jha, SOS, IGNOU
14. Prof. B. I. Fozdar, SOS, IGNOU
15. Prof. Amrita Nigam, SOS, IGNOU
16. Prof. M.S. Nathawat, SOS, IGNOU
17. Prof. T. K. Jena, SOHS, IGNOU
18. Dr. Manoj Kulshreshtha, SOET, IGNOU
19. Dr. S. Venkataraman, SOS, IGNOU
20. Dr. Bano Saidullah, SOS, IGNOU
21. Dr. Vijay Kumar Baraik, SOS, IGNOU
22. Dr. Sanjay Gupta, SOS, IGNOU
23. Dr. Seema Kalra, SOS, IGNOU
24. Dr. Kakoli Gogoi, SOS, IGNOU
25. Shri P. K. Sangal, SOS, IGNOU

Prof. J.M. Khurana, Prof. S. K. Gakhar, Prof. K. Barik, Prof. M. Parhar, Prof. Neera Kapoor, Prof. J. A. Farooqi, Dr. Kamalika Banerjee could not attend the meeting.

At the outset, the Chairperson welcomed the members of the School Board and placed on record the School Board's appreciation for the contribution made by the outgoing members of the Board, namely, Prof. D. Gopal, Prof. M. K. Salooja, Shri Shashi Bhushan, Dr. V. VenkatRamanan, Dr. Sanjiv Kumar, Dr. B. Deshmukh, Dr. Manish Trivedi, Dr. Subhakanta Mohapatra, Dr. Arvind Kumar Shakya and Shri Pawan Kumar in enriching the deliberations of the Board. The Chairperson also welcomed the new members of the School Board present in the meeting, namely, Prof. T. K. Jena, Dr. Manoj Kulshreshtha, Dr. S. Venkataraman, Dr. Vijay Kumar Baraik, Dr. Seema Kalra, Dr. Kakoli Gogoi and Shri Prabhat Kumar Sangal. Thereafter, the following items on the agenda were deliberated upon:

**Item No. 1: To confirm the minutes of the 49<sup>th</sup> meeting of the School Board of the School of Sciences held on 28<sup>th</sup> April, 2014 and to note the action taken thereon.**

SB 50.1.1      The School Board was informed that no comments had been received on the Minutes of the 49<sup>th</sup> meeting of the School Board.

SB 50.1.2      The Minutes of the 49<sup>th</sup> meeting of the School Board were confirmed.

SB 50.1.3      The action taken report was noted by the School Board.

While noting the action taken, it was pointed out that in its 49<sup>th</sup> meeting, the Board had authorised the Chair to develop a policy for having a uniform evaluation methodology for the entrance tests and assessment of pre-PhD course work for PhD programmes being offered by the School. A comparison of the evaluation methodologies being used in the School for entrance tests and pre-PhD course work of the PhD programmes was presented to the Board and it was suggested that a Committee comprising Research Programme Coordinators of the School be set up to arrive at a uniform evaluation methodology for the entrance tests and pre PhD course work of PhD programmes being offered by the School. Members also suggested that the policy should be in the ambit of the overall policy framework of the University on the matter.

SB 50.1.4      The Board agreed to the request and approved that a Committee comprising the Research Programme Coordinators as members with the Director as Chair be formed to finalise a uniform evaluation methodology for entrance test and pre PhD course work for PhD Programmes of the School within the policy framework of the University:

1. Dr. Seema Kalra and Dr. Maneesha Pandey, Biochemistry
2. Prof. Sunita Malhotra and Dr. Kamalika Banerjee, Chemistry
3. Prof. M. S. Nathawat, Geography
4. Dr. Meenal Mishra and Dr. M. Prashanth, Geology
5. Dr. Bano Saidullah, Life Sciences
6. Dr. Deepika, Mathematics
7. Dr. S. Lamba, Physics
8. Dr. Manish Trivedi, Statistics

SB 50.1.5      Copies of the confirmed Minutes of the 49<sup>th</sup> meeting of the School Board held on April 28, 2014 (without Annexures) and the Action Taken Report are placed at **Annexures 1 and 2**, respectively.

**Item No. 2:      Matters arising from the minutes.**

SB 50.2.1      The following matters arising out of the Minutes were taken up:

- a) With reference to SB 49.9.3 of the Minutes regarding the nomenclature of the programme PG Diploma in Geospatial Modelling, it was proposed by the Programme Coordinator that for greater acceptability among potential candidates and for better reflection of the academic content of the programme, the Programme title in the Phase 1 form of the Programme approved by the

School Board in its 49<sup>th</sup> meeting held on 28<sup>th</sup> April, 2014 be modified to **PG Diploma in Geospatial Analysis and Modelling**. The School Board approved the proposal.

- b) With reference to SB 49.3.2 confirming the Minutes of the tenth meeting of the Standing Committee of the School Board and with reference to SBSC 10.11.3, the proposal of Dr. M. Prashanth, Assistant Professor in Geology, was placed before the School Board. The School Board had approved the decision of the Standing Committee advising Dr. M. Prashanth that the joint supervisor of the PhD candidate Mr. Pradeep Kumar Sivarajan should be from Trivandrum where the candidate is located so that his research work could be supervised closely. The Board had also approved the recommendation that a new supervisor should be associated from Trivandrum and the CV of the proposed supervisor should be placed in the next meeting of the Doctoral Committee for Geology for its recommendation. Till then, no further action should be taken in this case.

Dr. M. Prashanth's proposal that the candidate's request for associating the same external supervisor be approved as no other known Expert from Trivandrum had the expertise in the field of proposed research was deliberated upon by the School Board.

The School Board recommended that since the field area of the candidate was in Bangalore, an expert from the Dept. of Geology, University of Bangalore or from ISRO, Bangalore could be associated as the joint external Supervisor. Or else, an expert from the Centre for Earth Sciences or National Centre for Earth Science Studies from Trivandrum could be associated as the joint external Supervisor. Accordingly, as per the decision vide SBSC 10.11.3 and SB 49.3.2, the CV of the proposed supervisor should be placed in the next meeting of the Doctoral Committee for Geology for its recommendation. Till then, no further action should be taken in this case.

- c) With reference to SB 49.8.1 of the Minutes, the Board was informed that the Faculty of Geology had been advised by the Higher Authorities that the proposal of developing an integrated five year programme in Geology be modified to the proposal of developing separate programmes, at the Bachelor's and Master's levels. The Board approved the proposal of developing separate programmes at Bachelor's and Master's levels in Geology.

**Item No. 3: To co-opt external members of the School Board.**

SB 50.3.1 The Board was informed that the term of the external members, co-opted **under Clause (2)(e) of Statute 10 A**, would come to an end on 30<sup>th</sup> October, 2014. As per the decision of the School Board in its 45<sup>th</sup> meeting held on 28<sup>th</sup> Sept. 2012,

“two external members would be co-opted from the names suggested by the earlier disciplines of the School, namely Chemistry, Physics, Life Sciences and Mathematics; 2 members would be co-opted from the names suggested by the new disciplines of the School. The disciplines to be represented would be taken up in

alphabetical order and the fifth member would be co-opted from either discipline through rotation. The disciplines that remain unrepresented would invite special invitees to the School Board as and when required from the names approved in the given list.”

Accordingly, four external Experts were co-opted from the Disciplines of Chemistry, Life Sciences, and Biochemistry and Geography and the fifth member was co-opted from the Discipline of Geology. Since the term of the external members might come to an end before the next School Board meeting, the names of four external members to be co-opted from the Disciplines of Mathematics, Physics, Geology and Statistics were proposed for approval of the School Board.

As for the fifth external expert to be co-opted on the Board, the earlier decision of the Board was not explicit whether the member would be from old disciplines or new disciplines. It was decided that the external expert would be co-opted from one of the two new unrepresented Disciplines in alphabetical order. Accordingly, it was decided that the fifth member of the Board would be co-opted from the Discipline of Biochemistry. It was further decided that the practice approved for the co-option of external members from the four new Disciplines, namely, Biochemistry, Geography, Geology and Statistics, may be continued only for a period of 10 years counted from the creation of these Disciplines in the School vide notification number 1112 dated 5<sup>th</sup> June, 2009, i.e., until the year 2019.

SB 50.3.2      The Board discussed the proposed names and decided to co-opt the following external experts as its members for a term of two years with effect from 31<sup>st</sup> October, 2014:

1.      Prof. S. Kumaresan  
          School of Mathematics and Statistics, University of Hyderabad,  
          Prof. C. R. Rao Road, P.O. Central University, Hyderabad-500 046
2.      Prof. R. P. Tandon  
          Former Head, Dept. of Physics and Astrophysics,  
          University of Delhi, Delhi-110 007
3.      Prof. H. B. Srivastava  
          Centre of Advanced Study in Geology, Banaras Hindu University,  
          Varanasi-221 005
4.      Prof. Rajender Parsad  
          Principal Scientist, Design of Experiments,  
          Indian Agricultural Statistics Research Institute, PUSA Road, Library Avenue,  
          New Delhi-110012
5.      Prof. Seemi Farhat Basir,  
          Dept. of Biosciences,  
          Jamia Millia Islamia, New Delhi-110025

**Item no. 4: To constitute the Standing Committee of the School Board of the School of Sciences.**

SB 50.4.1 The Board was informed that in its 44<sup>th</sup> meeting held on 2<sup>nd</sup> and 30<sup>th</sup> March, 2012, the School Board of the School of Sciences had decided to constitute a Standing Committee of the School Board with a tenure of two years for considering and approving

1. the names of Expert committee members, course writers, paper setters, evaluators and members of the Moderation Board;
2. progress reports of the Ph.D. students, approvals of names of supervisors, etc. and other issues related to the Ph.D. programme; and
3. any other matter that has been authorized by the School Board.

The first Standing Committee of the School Board was notified on May 8, 2012 and comprised the following members:

- |                           |   |                                   |
|---------------------------|---|-----------------------------------|
| 1. Director of the School | - | Chairperson                       |
| 2. Prof S. C. Garg        | - | Member (Physics Discipline)       |
| 3. Prof. B. S. Saraswat   | - | Member (Chemistry Discipline)     |
| 4. Prof. S. S. Hasan      | - | Member (Life Sciences Discipline) |
| 5. Prof. P. Mital         | - | Member (Mathematics Discipline)   |
| 6. Prof. M. S. Nathawat   | - | Member (Geography Discipline)     |
| 7. Dr. Meenal Mishra      | - | Member (Geology Discipline)       |
| 8. Dr. Parvesh Bubber     | - | Member (Biochemistry Discipline)  |
| 9. Mr. Rajesh Kaliraman   | - | Member (Statistics Discipline)    |

When the terms of Dr. Meenal Mishra, Dr. Parvesh Bubber and Mr. Rajesh Kaliraman on the School Board ended, the Board had decided to nominate Dr. Benidhar Deshmukh, Dr. Arvind Kumar Shakya and Dr. Manish Trivedi instead, for the period of their tenure on the School Board.

The Board deliberated on the matter of constituting the second Standing Committee of the School Board and specifying clearly spelt out criteria for membership.

SB 50.4.2 The following criteria were decided for membership of the Standing Committee:

- i) Only members of the School Board shall be members of the Standing Committee of the School Board.
- ii) One member from each Discipline would be nominated on the Standing Committee by the School Board by seniority and by rotation.
- iii) If the next senior Faculty member from a Discipline happened to be the Chair of the School Board, the Faculty member next in seniority to the Chair from that Discipline would be nominated as member of the Standing Committee.

- iv) If the tenure of a member of the School Board from any Discipline got over before his/her tenure on the Standing Committee, the new School Board member from that Discipline would be nominated subject to the above stipulations.
- v) If a member of the Standing Committee were to proceed on leave, the senior-most Faculty member or the Faculty member next in seniority from the same Discipline would be invited as a special invitee provided any matter related to that Discipline was on the agenda.

SB 50.4.3 In accordance with its decision vide SB 50.4.2, the School Board constituted the following Standing Committee for a period of two years from the date of notification:

1. Director of the School	Chairperson
2. Prof. Sunita Malhotra	Chemistry
3. Prof. G. Kaicker	Life Sciences
4. Prof. Sujatha Varma	Mathematics
5. Prof. S. R. Jha	Physics
6. Dr. Seema Kalra	Biochemistry
7. Dr. Vijay Kumar Baraik	Geography
8. Dr. Kakoli Gogoi	Geology
9. Shri Prabhat Kumar Sangal	Statistics

**Item no. 5: To consider and approve the report of the Committee set up by the School Board of the School of Sciences to devise a systemic mechanism for providing improved services and learning experiences in the laboratory courses offered by the School of Sciences.**

SB 50.5.1 In its 48<sup>th</sup> meeting held on Jan. 27, 2014, the School Board of the School of Sciences had deliberated on the matter of devising a systemic mechanism to provide improved services and learning experiences while implementing laboratory courses. In pursuance of the decision of the Board to authorise the Chairperson to constitute the Committee to give its recommendations on the matter, a Committee comprising the following members was constituted:

- 1. Prof. Sunita Malhotra, Chairperson
- 2. Prof. Neera Kapoor
- 3. Prof. S. R. Jha
- 4. Prof. Amrita Nigam
- 5. Dr. Sanjay Gupta, Convenor

The report of the Committee was placed for the consideration and approval of the School Board.

SB 50.5.2 The Board appreciated the efforts of the Committee and deliberated upon the Report. The following recommendations were made by the School Board on the Report:

- i) For interaction with students, counsellors and SC functionaries while the lab courses are being conducted in Study Centres, panels of external experts should be drawn by the Discipline Groups from reputed institutions in the respective towns/cities/areas where the Labs are conducted, for a term of two years and these panels should be approved by the School Board.
- ii) Experts should be oriented about the expectations of the School. A list of do's and don'ts should be prepared for the Experts to adhere to during their interaction at the Study Centres.
- iii) Payment of the honorarium of Rs. 1000/ and conveyance charges to the Experts should be made by the concerned Regional Centre on receipt of a copy of the Report of the visit prepared by them in the prescribed format.
- iv) The formats for general and course specific feedback proposed by the Committee to operationalise the scheme ought to be prepared by the same Committee.
- v) All Discipline Groups should maintain the database of Study Centres and Academic Counsellors in programmes being offered by them.
- vi) Feedback of students was important and should be incentivized. Laboratory course teams should devise suitable mechanisms of obtaining feedback on Lab courses and the help of these Experts could also be taken in this exercise.

SB 50.5.3 The School Board approved the Report along with the above recommendations. The Report of the Committee is placed at **Annexure 3**.

**Item no. 6: To consider and approve the Minutes of the meeting of the Committee constituted by the School Board to examine the issue of offering MPhil programmes from the School of Sciences.**

SB 50.6.1 The School Board was informed that while deliberating on the Phase 1 Form for MPhil Programme in Geography in its 47<sup>th</sup> meeting held on Sept. 12, 2013, it had decided that in view of lack of clarity and the prevailing uncertainty, the matter be deferred. It had also set up a Sub-Committee comprising the following members to examine the issue holistically and give its recommendations:

- 1. Prof. S.C. Garg
- 2. Prof. B.S. Saraswat
- 3. Prof. Poornima Mital
- 4. Prof. M.S. Nathawat
- 5. Prof. Neera Kapoor

Members of the Committee decided to have Prof. S. C. Garg as the Chairperson and Prof. Neera Kapoor as the Convenor of the Committee. The School Board deliberated on the Minutes of the meeting of the Committee held on 10<sup>th</sup> July, 2014, which are placed at **Annexure 4**.

SB 50.6.2 The School Board decided that the MPhil programmes of the School of Sciences should be implemented as per the overall policy of IGNOU. It was further decided

that the same Committee would re-examine the matter in this light and make recommendations accordingly for the consideration of the School Board.

**Item no. 7: To consider and approve the names of Experts for the Expert Committee for review of the B.Sc. Programme in the light of the decision of the Academic Council taken vide AC 62.6.2 in its 62<sup>nd</sup> meeting.**

SB 50.7.1 The School Board was informed that in its 62<sup>nd</sup> meeting held on 11<sup>th</sup> April, 2014, the Academic Council had approved the restructuring of the Bachelor's Degree Programme, in principle, with the objective of taking a fresh look at the existing programmes and evaluating their relevance for contemporary social situation so that it also acquires an employment orientation. The Academic Council also felt that since these programmes are nearly two decades old, modifications and structural adjustments in these programmes had become necessary. An extract of the Minutes of the Academic Council meeting is placed at **Annexure 5**.

The Board was also informed that the School of Sciences had given its views to the competent authority that it would like to hold national consultation for restructuring the B. Sc. programme and follow the statutory procedures for implementing the new structure. Accordingly the proposal to consider and approve the names of Experts for the Expert Committee for review of the B.Sc. Programme was being placed before the School Board.

SB 50.7.2 The Board deliberated upon the matter and approved the names of the following Experts for the Expert Committee to review the B.Sc. Programme in the light of the decision of the Academic Council vide AC 62.6.2 (Annexure 5):

1. Prof. A. K. Ghatak (Retd.)  
Dept. of Physics, IIT, Delhi
2. Prof. Vipin K. Srivastava  
Dept. of Physics, Central University, Hyderabad
3. Prof. S. K. Dogra (Retd.)  
Dept. of Chemistry, IIT, Kanpur
4. Prof. SMS Chauhan  
Dept. of Chemistry, University of Delhi
5. Prof. Madhu Raka  
Dept. of Mathematics, Panjab University, Chandigarh
6. Prof. M. M. Shikare  
Dept. of Mathematics, University of Pune, Pune
7. Prof. Oommen V. Oommen  
CSIR Emeritus Scientist and Chairman,  
Kerala State Biodiversity Board, Trivandrum
8. Prof. Anupam Dixit  
Dept. of Botany, University of Allahabad



9. Prof. S. C. Garg,  
School of Sciences, IGNOU
10. Prof. B. S. Saraswat,  
School of Sciences, IGNOU
11. Prof. S. S. Hasan,  
School of Sciences, IGNOU
12. Prof. J. Sokhi,  
School of Sciences, IGNOU
13. Prof. Poornima Mital,  
School of Sciences, IGNOU
14. Prof. Vijayshri, Director,  
School of Sciences                      Convenor

**Item no. 8: To consider and approve the lists of Experts for the Doctoral Committees in Biochemistry, Chemistry, Geography, Geology, Life Sciences, Mathematics, Physics and Statistics.**

SB 50.8.1      The panels of Experts for the Doctoral Committees in Biochemistry, Chemistry, Geography, Geology, Life Sciences, Mathematics, Physics and Statistics were placed before the School Board of School of Sciences for consideration and approval.

SB 50.8.2      While considering the panels of experts for the Doctoral Committees, the School Board made the following recommendations:

- a) The names of internal Faculty members should also be listed in the panels.
- b) Experts with substantial research experience in the areas of specialisation should be included in the panels and preference should be given to Associate Professors and Professors or their equivalent. Assistant Professors of exceptional research calibre may, however, be included in the panels.
- c) As far as possible, the Doctoral Committee may be constituted in a given area of specialisation to assess and monitor the progress of PhD scholar(s) working in that area through their entire period of research work.

SB 50.8.3      In the light of the above recommendations, the following panels of Experts for the Doctoral Committees in Biochemistry, Chemistry, Geography, Geology, Life Sciences, Mathematics, Physics and Statistics were approved by the School Board.

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29<sup>th</sup> September,  
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## Panel of Experts for the Doctoral Committee for Biochemistry

S. No.	Name	Address	Area (s) of Specialisation
1.	Prof. Prahlad Ghosh	Dept. of Biochemistry, University of Delhi, South Campus, New Delhi-21 Phone: 011-24111968, 9810841488 Email: pcghose@gmail.com	Molecular Biology and Biochemistry
2.	Prof. Debi Prasad Sarkar	Dept. of Biochemistry University of Delhi, South Campus, Delhi University, New Delhi-21 Mobile: 9810696767 Email: dpsarkar59@gmail.com, debi.sarkar@south.du.ac.in	Virology, Molecular Cell Biology, Drug Delivery
3.	Prof. Ranjit K. Mishra	Dept. of Biochemistry, University of Lucknow, Lucknow-226007 Mobile: 9415789199 Email: rkm399@lkouniv.ac.in, rkm399@gmail.com	Plant Biochemistry
4.	Prof. P. C. Rath	School of Life Sciences, JNU, New Delhi – 110067 Email: <a href="mailto:pcrath@mail.jnu.ac.in">pcrath@mail.jnu.ac.in</a> , <a href="mailto:rathpuri@yahoo.co.in">rathpuri@yahoo.co.in</a>	Molecular Biology
5.	Prof. Shakir Ali	Dept. of Biochemistry, Jamia Hamdard, New Delhi-110062 Office phone: 26059688 (Extn.5510); Mobile: 09911668898 E-mail: ali.alishakir@gmail.com	Medical Biochemistry
6.	Prof. Seemi Farhat Basir	Dept. of Biosciences, Jamia Millia Islamia, New Delhi- 110025 Mobile: 09810597159 E-mail: <a href="mailto:seemifb@gmail.com">seemifb@gmail.com</a> , <a href="mailto:basir@jmi.ac.in">basir@jmi.ac.in</a>	Biochemistry and Immunology
7.	Prof. Sanjeev Puri	University Institute of Engineering and Technology Panjab University, Chandigarh-160014 Office Phone: 0172- 253497 Email: s_puri@pu.ac.in	Biochemistry and Stem Cell engineering
8.	Prof. Jyotdeep Kaur	Additional Professor, Department of Biochemistry PGIMER, Sector 12, Chandigarh- 160012 Phone: +919814816705 Email: kaur.jyotdeep@pgimer.edu.in, jyotdeep2001@yahoo.co.in	Nutritional and clinical Biochemistry
9.	Prof. Valipasha	Dept. of Biochemistry, Yogi Vemana University, Kadapa- 516003 Phone: 08562-225437(O) Email: kotwal4@yogivemanauniversity.ac.in	Clinical Biochemistry, Antioxidants and Neurobiochemistry
10.	Prof. Pankaj Seth	Scientist V, Molecular and Cellular Neuroscience Neurovirology Section, National Brain Research Centre (NBRC) NH-8, Nainwal Road, Maneswar, Haryana-122050 Ph: +91-124-2845212 Email: <a href="mailto:pseth@nbrc.ac.in">pseth@nbrc.ac.in</a>	Neurobiochemistry
11.	Prof. Bechan Sharma	Dept. of Biochemistry, University of Allahabad, Allahabad-211002 Mobile: +91-9415715639 Email: bechansharma@gmail.com	Clinical Biochemistry
12.	Prof. Surya Satyanarayana Singh	School of Life Sciences, Osmania Univeristy, Hyderabad, 500007 Phone :09848450411 Email: suryasingh.oubioc@gmail.com	Plant-Microbe interaction, Molecular Biology
13.	Prof. P.C. Sharma	University School of Bio-Technology G.G.S. I.P. University, Sector - 16C Dwarka, Delhi - 110078 Email: <a href="mailto:pcsharma@ipu.edu">pcsharma@ipu.edu</a> Phone: +91 - 11- 23900220 (O); Fax: +91 - 011-23865941	Bioinformatics

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14.	Prof. M. Raghunath	Scientist-F, National Institute of Nutrition, Hyderabad- 500007 Mobile: 91-40-27197235, Fax 91-40-27019074 Email: mraghunath55@yahoo.com	Biophysics
15.	Prof. Reena Gupta	Dept. of Biotechnology, Himachal Pradesh University, Summer Hill, Shimla- 171 005 Phone: +91-177-2832552, 09418462552 Email: reenagupta_2001@yahoo.com	Microbial Biochemistry
16.	Prof. Deepak Bhatnagar	School of Biochemistry, Devi Ahilya Vishwavidyalaya, Nalanda Campus, R. N. T. Marg, Indore (M.P.)- 452 001 Phone: 0731 - 2460276 (office), 09424072197 Email: <a href="mailto:dbhatnagar1@rediffmail.com">dbhatnagar1@rediffmail.com</a> , <a href="mailto:bhatnagarbio@gmail.com">bhatnagarbio@gmail.com</a>	Free radical biology, Toxicology
17.	Prof. Chanderdeep Tandon	Jaypee University of Information Technology, Waknaghat, P.O. Waknaghat, Teh Kandaghat, Distt. Solan-173 234, (H.P.) Office: ( 91)01792-239-224 Email: chanderdeep.tandon@juit.ac.in	Biotechnology and Bioinformatics
18.	Prof. H.P. Pandey (Retd.)	Dept. of Biochemistry, Banaras Hindu University, Varanasi-05 Tel : 91-9453305493/9335663878 Email: hppandey2010@hotmail.com	Clinical Biochemistry
19.	Prof. Om Prakash	Dept. of Biochemistry, Banaras Hindu University, Varanasi-05. Tel: 0542-6701602, 6702589, 6702590. E-mail: oprakash01@yahoo.co.in; headbiochembhu@yahoo.com	Enzymology
20.	Prof. Nalini Srivastava	School of Studies in Biochemistry, Jiwaji University, Gwalior 474 011 (O) 0751-2442796 (R) 0751-2330520 Email: <a href="mailto:nalinis21@yahoo.com">nalinis21@yahoo.com</a>	Parasitic biochemistry, Molecular toxicology
21.	Prof. D Syiem	Dept. of Biochemistry North Eastern Hill University, Shillong, 792022 Phone No. 272 2101/ 272 2102 Email: dsyiem@yahoo.com	Medicinal plants in diseases
22.	Dr Prasada Rao	Sr. Principal Scientist, Dept of Biochemistry and Nutrition, Central Food Technological Research Institute, Mysore- 570 020. Email: <a href="mailto:ujs@cftri.res.in">ujs@cftri.res.in</a> Mob no: +91-9481815481	Oxidative stress
23.	Dr. Abhay K. Pandey	Associate Professor, Dept. of Biochemistry University of Allahabad, Allahabad - 211002 Mobile: +91 9839521138 Email: <a href="mailto:akpandey23@rediffmail.com">akpandey23@rediffmail.com</a> , <a href="mailto:abhaypandey23@gmail.com">abhaypandey23@gmail.com</a>	Microbial biochemistry, Oxidative stress
24.	Dr. Nirupma Trehan Pati	Associate Professor, Institute of Liver and Biliary sciences Vasant Kunj, New Delhi- 110070 Mobile: 9540946971 Email: trehanpati@gmail.com	Clinical and Cellular Transplant, Immunology
25.	Dr. Parvesh Bubber	School of Sciences, IGNOU	
26.	Dr. Seema Kalra	School of Sciences, IGNOU	
27.	Dr. Maneesha Pandey	School of Sciences, IGNOU	
28.	Dr. M. Abdul Kareem	School of Sciences, IGNOU	
29.	Dr. Arvind Kumar Shakya	School of Sciences, IGNOU	

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29<sup>th</sup> September,  
2014

## Panel of Experts for the Doctoral Committee for Chemistry

S. No.	Name	Address	Area (s) of specialisation
1.	Prof. Sharif Ahmed	Head, Dept. of Chemistry, J.M.I., New Delhi – 25 Mobile: 09891290510 Email: sahmada@jmi.ac.in	Material Chemistry
2.	Prof. M. Sarwar Alam	Head, Dept. of Chemistry Jamia Hamdard, Hamdard Nagar, New Delhi Mobile: 9717927759 Email: msalam@jamiahamdard.ac.in	Organic Chemistry
3.	Prof. S.M.S Chauhan	Head, Dept. of Chemistry, University of Delhi, Delhi-110007 Mobile: 9871969266 Email: smschauhan@chemistry.du.ac.in	Organic Chemistry
4.	Prof. J.M. Khurana	Dept. of Chemistry University of Delhi, Delhi-110007 (M) 09810651142 E-mail: <a href="mailto:jmkhurana@chemistry.du.ac.in">jmkhurana@chemistry.du.ac.in</a>	Organic Chemistry
5.	Prof. J.D. Singh	Dept. of Chemistry, IIT Delhi, New Delhi Phone: 01126591512 Email: jaideo@chemistry.iitd.ac.in	Organic Chemistry
6.	Prof. V.S. Parmar	Former Head, Dept. of Chemistry University of Delhi, Delhi-110007 Mobile: 9818528933 Email: virparmar@gmail.com	Organic Chemistry
7.	Prof. S.C. Jain	Dept. of Chemistry, University of Delhi, Delhi-07 Mobile: 09810261947 Email : Jainsc48@hotmail.com	Organic Chemistry
8.	Prof. Imran Ali	Dept. of Chemistry, Jamia Millia Islamia, New Delhi- 110025 Mobile: 9211458226 Email: iali2@jmi.ac.in	Organic Chemistry
9.	Dr. Shashibala Singh	Principal Scientist, Indian Agricultural Research Institute, Pusa, Delhi Mobile: 09013007304 Email: sbs_agch@yahoo.com	Agrochemicals and Organic Chemistry
10.	Prof. Ashok Ganguly	Director, Institute of Nano Science and Technology, Phase - 10, Sector - 64, Mohali, Punjab and Adjunct Professor at IISER, Mohali <a href="tel:172-221007375">Phone: 172-2210073/75</a> E-mail: <a href="mailto:ashok@chemistry.iitd.ac.in">ashok@chemistry.iitd.ac.in</a>	Physical Chemistry
11.	Prof. A.K. Bakhshi	Former Vice Chancellor UPRTOU, Allahabad Mobile: 09818352820 E-mail: <a href="mailto:akbakhshi2000@yahoo.com">akbakhshi2000@yahoo.com</a> Presently he has moved to Mauritius.	Physical Chemistry
12.	Prof. Rita Kakkar	Dept. of Chemistry, University of Delhi, Delhi-07 Mobile: 9810120508 Email: rkakkar@chemistry.du.ac.in	Physical Chemistry

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13.	Prof. S.K. Dogra, (Retd.)	Dept. of Chemistry, IIT Kanpur Mobile: 9818791143 Email: skdogra@iitk.ac.in	Physical Chemistry
14.	Prof. R.C. Rastogi	Dept. of Chemistry, University of Delhi, Delhi-07 Mobile: 9810861123 Email: rcrastogi@chemistry.du.ac.in	Physical Chemistry
15.	Dr. Athar Adil Hashmi	Associate Professor, Dept. of Chemistry, JMI, Jamia Nagar, New Delhi-110025 Mobile: 9868523358 Email: ahashmi@jmi.ac.in, <a href="mailto:aah_ch@yahoo.co.in">aah_ch@yahoo.co.in</a>	Inorganic Chemistry
16.	Prof. Pawan Mathur	Dept. of Chemistry, Univ. of Delhi, Delhi-110007 Mobile: 09818373579 E-mail: pavanmat@yahoo.co.in	Inorganic Chemistry
17.	Prof. N.K. Kaushik	Former Head, Dept. of Chemistry University of Delhi, Delhi-110007 Mobile: 09818167997 E-mail: narenderkumar_kaushik@yahoo.co.in	Inorganic/Analytical Chemistry
18.	Prof. Gurmeet Singh	Dept. of Chemistry, University of Delhi, Delhi-07 Mobile: 9810390640 Email: gurmeet123@yahoo.com	Inorganic Chemistry
19.	Prof. Tabrez Alam	Dept. of Chemistry, JMI, Jamia Nagar, New Delhi-110025 Mobile: 9868120985 Email: takhan@jmi.ac.in	Inorganic Chemistry
20.	Prof. Monika Dutta	Dept. of Chemistry, University of Delhi, Delhi-07 Mobile: +919811487825 Email: monikadatta_chem@yahoo.co.in	Analytical/Inorganic Chemistry
21.	Prof. Rakesh Sharma	Dept. of Chemistry, University of Delhi, Delhi-07 Mobile: 9958313101 Email: rksharmagreenchem@hotmail.com	Inorganic, Green Chemistry
22.	Prof. P.T. Manoharan	INSA Senior Scientist RSIC 18, IIT Madras, Chennai-600036 Mobile: 09841292225 Email : <a href="mailto:ptm@iitm.ac.in">ptm@iitm.ac.in</a>	Science Education /Chemistry Education/Physical Chemistry/Inorganic Chemistry
23.	Prof. Bhuvanesh Gupta	Dept. of Textile Technology, IIT, Delhi Mobile: 9871639232 Email: bgupta@textile.iit.ernet.in	Polymer Chemistry
24.	Prof. M. R. Rajeshwari	All Indian Institute of Medical Sciences, New Delhi – 110029. Mobile: 09810145036 Email: <a href="mailto:rajeswari3011@hotmail.com">rajeswari3011@hotmail.com</a>	Biochemistry
25.	Prof. B. S. Saraswat	School of Sciences, IGNOU	
26.	Prof. Sunita Malhotra	School of Sciences, IGNOU	
27.	Prof. B. I. Fozdar	School of Sciences, IGNOU	
28.	Prof. J. A. Farooqi	School of Sciences, IGNOU	
29.	Dr. Laita S. Kumar	School of Sciences, IGNOU	
30.	Dr. Sanjiv Kumar	School of Sciences, IGNOU	
31.	Dr. Kamalika Banerjee	School of Sciences, IGNOU	

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## Panel of Experts for the Doctoral Committee for Geography

S. No.	Name	Address	Area of Specialisation
1.	Prof. H.S. Sharma (Retd.)	A-3, Shanti Niketan Colony, Kishan Marg, Tonk Road, Jaipur - 303015, Rajasthan Contact- 09983349022 email- pachhoral@yahoo.com	Physical Geography, (Desert, Geomorphology)
2.	Prof. Harjit Singh	Centre for Study in Regional Development (CSRD), School of Social Sciences (SSS), JNU, New Delhi- 110067 Contact- 9811392343 email- harjit@mail.jnu.ac.in	Physical Geography, Regional Geography and Environmental Geography
3.	Prof. M.H. Qureshi	Shri A. M. Khwaja Chair, Jamia Milia Islamia, New Delhi- 110025. Contact- 9312637470 email- mhqureshi42@gmail.com	Agricultural Geography, Economic Geography
4.	Prof. H. Ramachandran (Retd.)	University of Delhi C-1675, Palam Vihar, Gurgaon, Haryana-122017. Contact- 99810170308 email- hariharan_ramachandran@hotmail.com	Economic Geography, Urban and Regional Geography
5.	Prof. Aslam Mehmood (Retd.)	Centre for Study in Regional Development (CSRD), School of Social Sciences (SSS), JNU, New Delhi- 110067 Contact- 26704577 email- amahmood@mail.jnu.ac.in	Quantitative Methods in Geography, Population Studies
6.	Prof. Amitabh Kundu	Centre for Study in Regional Development (CSRD), School of Social Sciences (SSS), JNU, New Delhi- 110067 Contact- 26704457 email- amit0304@mail.jnu.ac.in	Urban, Regional Planning and Research Methods
7.	Prof. V. C. Jha	Director, National Atlas and Thematic Mapping Organization, Department of Science and Technology, Government of India, C.G.O. Complex, (7 <sup>th</sup> Floor), DF- Block, Bidhan Nagar, Kolkata- 700064. Contact- 033 2343699, 03323346331, Fax- 03323346331 email: natmo@vsnl.net	Geomorphology, RS and GIS, Cartography
8.	Prof. B. Hema Malini	Professor Emeritus, Dept. of Geography, Andhra University, Visakhapatnam - 530 003 Contact- +91891-2844581 (O); +918912790603 (R) email: bhmalini@yahoo.com	Climatology
9.	Prof. A. Ganesh	School of Geosciences, Bharatidasan University, Tiruchirapalli-620024 Contact- 0431 2407079 Fax: 0431 2407045 email- aganesh2001@gmail.com	Physical Geography, RS and GIS
10.	Prof. Krishne Gowda	Institute of Development Studies, University of Mysore, Manasgangotri, Mysore- 570006. Contact- 09916265439 email: krishnegowda@hotmail.com	Urban and Regional Planning

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11.	Prof. B. S. Butola	Centre for Study in Regional Development (CSRD), School of Social Sciences (SSS), JNU, New Delhi- 110067 Contact- 01126704468 (O), 01126741515 (R) email: bsbutola@mail.jnu.ac.in butola.bs@gmail.com	Human Geography, Regional Geography
12.	Prof. K. N. P. Raju	Dept. of Geography, Banaras Hindu University, Varanasi- 221005. Contact- 0542-2575078 (R)/09935346553 (M); Fax: 0542-2368174 email: knpraju1954@gmail.com	Water Resources, RS and GIS
13.	Prof. G. K. Panda	Dept. of Geography, Utkal University, Bhubaneswar, Orissa- 751004. Contact- 0674 2567052 email: gopalkrishna_panda@yahoo.co.uk	Physical Geography (Fluvial), RS and GIS
14.	Prof. Milap Chand Sharma	Centre for Study in Regional Development (CSRD), School of Social Sciences (SSS), JNU, New Delhi- 110067 Contact-: 011-26704690 Mobile: 09818772842 email: milapsharmain@yahoo.co.in	Physical Geography (Glaciology, Climate), RS
15.	Prof. A. C. Mahapatra	Dept. of Geography, North Eastern Hill University, Umshing Mawkyntroh, Shillong- 793022. Contact- 09436311437 email: acmahapatra@hotmail.com	Agricultural Geography and Research Methods
16.	Prof. M. Sultan Bhat	Dept. of Geography and Regional Development, University of Kashmir, Srinagar, J&K- 190006 Contact- 09906577391 email: bhatgeo@yahoo.co.in bhatgeo@kashmiruniversity.ac.in	Human Geography, Agriculture Geography
17.	Prof. R. B. Singh	Dept. of Geography, Delhi School of Economics, University of Delhi, Delhi-07. Mob. - 9971950226, Tel. No. :- 01563-27666491 email :- rbsgeo@hotmail.com	Environmental Geography, RS and GIS
18.	Prof. R. B. P. Singh	Vice Chancellor, Nalanda Open University, Professor (on-Lien), Patna University, Biscomaun Bhawan, Gandhi Maidan, Patna- 800001. Mob. - 9572356845, 9835253763, Tel. - 06122201013 email- singh.rbp@gmail.com	Urban Geography, Political Geography and Regional Development
19.	Prof. Mohammed Ishtiaque	Dept. of Geography, Jamia Millia Islamia, New Delhi- 25. Mob. - 09911225443, Tel. No. - 01126911667 email - mistiaque@jmi.ac.in, mistiaque@gmail.com	Social Geography
20.	Prof. S. C. Rai	Delhi School of Economics, University of Delhi, Delhi-07. Mob. - 9868943593, email - raisc1958@rediffmail.com	Physical Geography (Water Resources)
21.	Prof. M. S. Nathwat	School of Sciences, IGNOU	
22.	Dr. Vijay Kumar Baraik	School of Sciences, IGNOU	
23.	Dr. S. Mohapatra	School of Sciences, IGNOU	
24.	Dr. Satya Raj	School of Sciences, IGNOU	
25.	Dr. Vishal Warpa	School of Sciences, IGNOU	
26.	Dr. K. N. Rao	School of Sciences, IGNOU	

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## Panel of Experts for the Doctoral Committee for Geology

S. No.	Name	Address	Area of Specialisation
1.	Prof. J.P. Shrivastava	Dept. of Geology, University of Delhi, Delhi - 110 007 Ph.: 011-27667073 (R), optional 011-27666834, Fax: 011 – 27666295, (M): 9868742144 Email: jpshrivastava.du@gmail.com	Geochemistry, Economic Geology and Petrology
2.	Prof. G.S. Roonwal (Retd.)	Dept. of Geology, University of Delhi Res.: C-520, SFS, Sheikh Sarai – I, New Delhi (M): 98912 12668, Ph.: 011 –2601 2529 (Res.) Email: <a href="mailto:gsroonwal@hotmail.com">gsroonwal@hotmail.com</a>	Petrology, Economic Geology
3.	Dr. L. K. Sinha	Sr. Scientist 'F', Addl. Director Defence Terrain Research Laboratory, Defence R&D Organisation, Metcalfe House, Delhi-54 Ph.: 011-23814752, 23881614, Cell: 09868105058, Fax: 011-23812494 Email: lksinha@dtrl.drdo.in	Geoinformatics Applications for terrain studies
4.	Prof. J. K. Garg	Director, Centre for Disaster Management Studies & Management, GGSIU University, Sector -16 C, Dwarka, New Delhi -75 (M): 09910629336, Ph. 011-26704257 Email: gargjk@gmail.com	Geoinformatics Applications in ecology, biology and natural hazards
5.	Prof. G. V.R Prasad	Department of Geology, Centre for Advanced Studies, University of Delhi, Delhi (M): 09868207140 Email: guntupalli.vrprasad@gmail.com	Palaeontology and Stratigraphy
6.	Dr. N. Janardhana Raju	Associate Professor, School of Environmental Sciences, JNU, New Delhi –67 Phone: 011 26704257 (O), (M): 9910629336 Email: njraju1963@yahoo.com; rajunj@mail.jnu.ac.in	Hydrogeology, Environmental Geosciences, Aquatic Geochemistry
7.	Dr. P. P. Chakraborty	Associate Professor Dept. of Geology, University of Delhi, Delhi-110 007 (M): 9958372502 Email: <a href="mailto:parthageology@gmail.com">parthageology@gmail.com</a> , <a href="mailto:Partha_geology@yahoo.co.in">Partha_geology@yahoo.co.in</a>	Sedimentology, Stratigraphy and basin Modeling
8.	Dr. Pankaj Srivastava	Associate Professor, Department of Geology, University of Delhi, Delhi - 07 (M): 9868454197, Ph.: 011-27667073 (O), 27662927 (R) Email: pankajps@gmail.com	Sedimentary Geology, Geomorphology, Soil Geology
9.	Dr. Varun Joshi	Associate Professor, University School of Environment Management GGSIU University, Sector 16-C, Dwarka, New Delhi 110075 Email: varunj63@yahoo.com Phone: 011-25302363/ 62 (O), (M): 900616300810	Environmental Geology, Natural hazards and Sustainable development, Glaciology, Disaster Management, EIA
10.	Prof. Naval Kishore	Dept. of Geology Panjab University, Sector 14, Chandigarh - 160014 (M): 9815606889 Email: <a href="mailto:navalkishorepu@gmail.com">navalkishorepu@gmail.com</a>	Igneous Petrology



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11.	Prof. Rajesh K. Srivastava	Centre of Advanced Study in Geology, Banaras Hindu University, Varanasi – 221005 (M): 9415812079 Email: <a href="mailto:rajeshgeolbhu@gmail.com">rajeshgeolbhu@gmail.com</a> ; <a href="mailto:rajeshgeolbhu@yahoo.com">rajeshgeolbhu@yahoo.com</a>	Igneous Petrology, Geochemistry and Precambrian Geology
12.	Prof. R. Baskar	Dept. of Environmental Science and Engineering Guru Jambheshwar University of Science and Technology, Hisar - 125 001 Ph. (Office): 0091-1662-263325, (M): 94164 39339 Email: <a href="mailto:rbaskargjuhisar@yahoo.com">rbaskargjuhisar@yahoo.com</a>	Igneous Petrology, Environmental Geology, Soil Geology
13.	Dr. Pankaj K. Srivastava	Associate Professor Dept. of Geology, University of Jammu, Jammu (M): 91-9419125574, Ph.: 191-2430261 (Res.), Email: <a href="mailto:srivastav_pk@rediffmail.com">srivastav_pk@rediffmail.com</a>	Igneous Petrology, Economic and Ore geology
14.	Prof. Dilip Mazumdar	Dept. of Applied Geology, Dibrugarh University, Dibrugarh- 786 004 (M): 09864230298, Fax : 0373-2370323. Email: <a href="mailto:dimaj101@yahoo.co.in">dimaj101@yahoo.co.in</a>	Economic and Ore geology
15.	Prof. N.P. Bhatt	Dept. of Geology M.S. University of Baroda, Sayajigunj, Baroda – 390002 Phone Nos : 02652226088 Email : <a href="mailto:nileshbhatt_geology@msubaroda.ac.in">nileshbhatt_geology@msubaroda.ac.in</a>	Coastal geomorphology, Sedimentology, Quaternary climate changes, GPR
16.	Dr. Vikrant Jain	Associate Professor (Earth Sciences) IIT Gandhinagar, Ahmedabad, Gujarat, India – 382424 Tel No.: +91 8238 0066 76 Email: <a href="mailto:vjain@iitgn.ac.in">vjain@iitgn.ac.in</a>	Earth Surface Processes, Quantitative Geomorphology, River Science
17.	Prof. Arun Kumar	Dept. of Earth Sciences, Manipur University, Imphal-795003 Tel: +913852435173, 2435077 (O); (M): +919862027955 E mail: <a href="mailto:arun634@gmail.com">arun634@gmail.com</a>	Geomorphology, Disaster management, Remote Sensing & GIS
18.	Prof. S. K. Pande	School of Studies in Geology and Water Resource Management, Pt. Ravishankar Shukla University, Amanaka GE Road, Raipur – 492 010, (M): 09827479377 Email ID: <a href="mailto:shrikant.skp@gmail.com">shrikant.skp@gmail.com</a>	Water Resources Geoinformatics, Igneous Petrology
19.	Dr. D. Ramakrishnan	Associate Professor Dept. of Earth Sciences, IIT Bombay, Powai, Mumbai - 76 Phone : +91-22-2576 7255, (M): 09969017977 Email: <a href="mailto:ramakrish@iitb.ac.in">ramakrish@iitb.ac.in</a>	Geomorphology, Hydrogeology, Applied Geology and Remote Sensing
20.	Prof. Arun Kumar Saraf	Dept. of Earth Sciences, IIT Roorkee, Roorkee - 247667 Ph.: 01332- 285549 (O), 285102 (R), Fax: 01332- 285638, 273560 Email: <a href="mailto:saraffes@iitr.ernet.in">saraffes@iitr.ernet.in</a> , <a href="mailto:arun.k.saraf@gmail.com">arun.k.saraf@gmail.com</a>	Geoinformatics applications in earthquakes and water resources
21.	Prof. A. S. Jasrotia	Dept. of Geology, University of Jammu, Jammu – 180 006 (M): 09419133793 Email: <a href="mailto:asjasrotia@yahoo.co.uk">asjasrotia@yahoo.co.uk</a>	Groundwater, Remote sensing & GIS
22.	Prof. T.V. Krishna Reddy (Retd.)	Dept. of Geology, S.V. University, Tirupati (M): 09440162976 Email: <a href="mailto:tvkreddy2k1@yahoo.co.in">tvkreddy2k1@yahoo.co.in</a>	Groundwater & Hydrogeology

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23.	Dr Rashid Umar	Associate Professor, Dept. of Geology, AMU, Aligarh - 202002 Ph.: (Home)91-571-2721312, (M): 09410200862 Email: rashidumar@rediffmail.com	Groundwater & Hydrogeology
24.	Dr. Kishore Kumar	Scientist – G, Wadia Institute of Himalayan Geology 33 GMS Road, Dehradun – 248001 (M): 09456116567 Email: kumark@wihg.res.in	Palaeontology and Stratigraphy
25.	Prof. Rajeev Patnaik	Centre of Advanced Study in Geology, Panjab University, Chandigarh – 160014 (M): 09815104094 Email : rajeevpatnaik@gmail.com	Palaeontology and Stratigraphy
26.	Prof. Sunil Bajpai	Director, Birbal Sahni Institute of Palaeobotany 53 University Road, Lucknow – 226007 Ph.: 0522-2740470, 2740439 (office) Email: <a href="mailto:sunilbajpai2001@yahoo.com">sunilbajpai2001@yahoo.com</a> ; director@bsip.res.in	Palaeontology and Stratigraphy
27.	Prof. M. A. Malik	Dept. of Geology University of Jammu, Jammu – 180 006 (M): 09419134721 Email: mamalik_geol@yahoo.com	Micropalaeontology and Stratigraphy
28.	Dr. Meenal Mishra	School of Sciences, IGNOU	
29.	Dr. B. Deshmukh	School of Sciences, IGNOU	
30.	Dr. Omkar Verma	School of Sciences, IGNOU	
31.	Dr. M. Prashanth	School of Sciences, IGNOU	
32.	Dr. Kakoli Gogoi	School of Sciences, IGNOU	

## Panel of Experts for the Doctoral Committee for Life Sciences

S. No.	Name	Address	Area of Specialisation
1.	Dr. R.D. Gautam	Division of Entomology, IARI, Pusa, New Delhi – 110012 M : 9810546703, E-mail: ramdass.gautam@yahoo.com	Crop Entomology
2.	Dr. Subhash Chander	Division of Entomology, IARI, Pusa, New Delhi –12 M : 9868846540, E-mail: schander@iari.res.in	Crop Entomology
3.	Dr. Neelima Mishra	Scientist F, National Institute of Malaria Research Sector 8, Dwarka, Delhi – 110077 M : 9910223439 Email : <a href="mailto:neelima.nimr@gmail.com">neelima.nimr@gmail.com</a> / <a href="mailto:neelima@mrcindia.org">neelima@mrcindia.org</a>	Medical Entomology
4.	Dr. Tridibes Adak	Scientist F, National Institute of Malaria Research Sector 8, Dwarka, Delhi-110077 M : 9899117847, E-mail: adak.mrc@gmail.com	Medical Entomology
5.	Dr. Bhupender Nath Nagpal	Scientist F, National Institute of Malaria Research Sector 8, Dwarka, Delhi-110077 M : 9810895280, Email : <a href="mailto:b_n_nagpal@hotmail.com">b_n_nagpal@hotmail.com</a>	Medical Entomology
6.	Dr. P.K. Mittal	Scientist F, National Institute of Malaria Research Sector 8, Dwarka, Delhi-110077 Phone No. : 011-25307403, Email : <a href="mailto:pk_mittal52@yahoo.co.in">pk_mittal52@yahoo.co.in</a>	Medical Entomology

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7.	Dr. Sarita Kumar	Associate Professor, Department of Zoology, Acharya Narendra Dev College, University of Delhi, Govind Puri, Kalkaji, New Delhi-110019 Tel: + 91 11 2629 4542, E-mail: sarita.sanjay90@gmail.com	Medical Entomology
8.	Dr. Mala Chhabra	Joint Director, Zoonosis Division, National Centre for Disease Control, 22, Sham Nath Marg, New Delhi-110 054 Tel: 011-23971272, E-mail: malachhabra@yahoo.co.in	Medical Entomology
9.	Prof. M. Fahim (Retd.)	HIMSR, Jamia Hamdard University, New Delhi – 110062 Mobile : 9899218021 E-mail : <a href="mailto:ypciphysiology@yahoo.com">ypciphysiology@yahoo.com</a>	Biophysics and Animal Physiology
10.	Prof. Neeta Sehgal	Dept. of Zoology, University of Delhi, Delhi – 110007 Mobile : 9810784839, E-mail: neetasehgal.du@gmail.com	Animal Physiology
11.	Prof. Oommen V. Oommen	Prof. Oomen. V. Oomen CSIR Emeritus Scientist and Chairman, Kerala State Biodiversity Board, Pettiah, Trivandrum, Kerela Mobile: 09447728940, E-mail: oomenvo@gmail.com, oomenvo@yahoo.com	Animal Physiology & Endocrinology
12.	Prof. Subhendu Ghosh	Associate Professor, University of Delhi (South Campus), Delhi- 110021 M: 0998018654, E-mail: profsubhendu@gmail.com	Biophysics
13.	Dr. Mohd. Zahid Ashraf	Scientist D, Genomics Group Defence Institute of Physiology & Allied Sciences DRDO, Lucknow Road, Timarpur , Delhi-110054 M: 9871426706, Tel: 011-23883310 E-mail: mohammadzashraf@gmail.com	Animal & Human Physiology
14.	Prof. Ashok Bhatnagar (Retd.)	Dept. of Botany, University of Delhi, Delhi – 110007 <b>Res.:</b> JA/4B, Ashok Vihar-I(Res.), Delhi-110052 M: 980376885, (H) 011-27431016 E-mail: akb_du@rediffmail.com	Microbiology Plant Development Biology/ Ethnobotany
15.	Prof. Ajit Varma	Director, Institute of Herbal and Microbial Studies, Amity University, Sector – 125, Nodia – 201303 Tel: 0120-4392132, 2431182 E-mail: <a href="mailto:ajitvarma@aihm.amity.edu">ajitvarma@aihm.amity.edu</a>	Microbiology
16.	Dr. Rupam Kapoor	Associate Professor, Dept. of Botany, University of Delhi, Delhi-110007 M: 9818497035, E-mail: kapoor_rupam@yahoo.com	Microbiology
17.	Dr. K. P. Misra	Professor & Head, Department of Microbiology S.N. Medical College, Agra-282004, UP M: 9997816020 E-mail: misrasunil66@gmail.com	Medical Microbiology
18.	Dr. U.D. Gupta	Deputy Director/Scientist E, National JALMA Institute for Leprosy and other Mycobacterial Diseases, Tajganj, Agra- 282001 Tel:0562-331751-54 Ext.266 E-mail:gupta.umesh95@gmail.com	Medical Microbiology
19.	Prof. Faizan Ahmad	Dept. of Bio Sciences, Jamia Milia Islamia, New Delhi – 110025 Ph.: 011-26920954; Email : <a href="mailto:fahmad@jmi.ac.in">fahmad@jmi.ac.in</a> / faizan.ahmad.jmi@gmail.com	Molecular Biology

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20.	Prof. Arif Ali	Dept. of Biosciences, Jamia Millia Islamia, New Delhi-110025 M : 99588 40058 Email : <a href="mailto:aali@jmi.ac.in">aali@jmi.ac.in</a> / <a href="mailto:aliarif@rediffmail.com">aliarif@rediffmail.com</a>	Molecular Biotechnology & Biotechnology/ Virology
21.	Prof. S. Akhter Hussain	Dept. of Bio Sciences, Jamia Millia Islamia, New Delhi – 110025 Email : <a href="mailto:shusain@jmi.ac.in">shusain@jmi.ac.in</a> / <a href="mailto:akhtarhusain2000@yahoo.com">akhtarhusain2000@yahoo.com</a>	Genetics and Biotechnology
22.	Prof. S.K. Jain	Dept. of Biotechnology, Jamia Hamdard University, New Delhi – 110062 Tel: 011-26055580, E-mail: <a href="mailto:skjain@jamiahamdard.ac.in">skjain@jamiahamdard.ac.in</a>	Molecular Biology & Biotechnology
23.	Dr. Kamal Kumar Gupta	Associate Professor Deshbandhu College, Kalkaji, University of Delhi, New Delhi-09 M : 9811822010, E-mail: <a href="mailto:kamal_suyash@yahoo.com">kamal_suyash@yahoo.com</a>	Molecular Biology
24.	Dr. Sarita Sachdeva	Associate Professor Manav Rachna University, Sector-43, Faridabad-121010, Harayana, M : 9999505387, E-mail: <a href="mailto:sarita.fet@mriu.edu.in">sarita.fet@mriu.edu.in</a>	Molecular Biology & Biotechnology
25.	Dr. O.P. Singh	Scientist F, National Institute of Malaria Research Sector 8, Dwarka, Delhi-110077 M : 9868003355, E-mail: <a href="mailto:singh@mrccindia.org">singh@mrccindia.org</a>	Molecular Biology
26.	Prof. Subhash Chand	Dept. of Biochemical Engineering and Biotechnology, IIT, New Delhi-110016 M: 09891677276, E-mail: <a href="mailto:subhashc46@hotmail.com">subhashc46@hotmail.com</a>	Molecular Biology & Biotechnology
27.	Prof. Simi Farhat	Dept. of Bio Sciences, Jamia Millia Islamia, New Delhi – 110025 Email : <a href="mailto:sbasir@jmi.ac.in">sbasir@jmi.ac.in</a> / <a href="mailto:seemifb@gmail.com">seemifb@gmail.com</a>	Biochemistry
28.	Dr. Sarwat Sultana	Associate Professor, Jamia Hamdard, New Delhi -110062 M: 09560561090, E-mail: <a href="mailto:ssultana@jamiahamdard.ac.in">ssultana@jamiahamdard.ac.in</a>	Biochemistry, Toxicology & Cancer Biology
29.	Prof. G.C. Srivastava (Retd.)	IARI, PUSA, , New Delhi –12 Res.: EA/16, Maya Enclave, New Delhi – 110064 M: 9810607845, E-mail: <a href="mailto:g_c_srivastava@rediffmail.com">g_c_srivastava@rediffmail.com</a>	Plant Physiology
30.	Prof. Neera Sarin	Dean, School of Life Sciences, JNU, New Delhi – 110067 Ph. : 011-25598468, 26704523 Email : <a href="mailto:neerasarin@rediffmail.com">neerasarin@rediffmail.com</a>	Plant Development and Physiology
31.	Prof. B.K. Goswami	Director, Amity Centre for Biocontrol and Plant Disease Management, Amity University, Sector-125, Nodia – 201303 M: 09818674063, +91120-4392180 E-mail: <a href="mailto:goswami@amity.edu">goswami@amity.edu</a>	Nematology
32.	Prof. Sudershan Ganguly	Department of Nematology, IARI, Pusa, New Delhi – 110012 M: 9868066021 E-mail : <a href="mailto:sg_nema@iari.res.in">sg_nema@iari.res.in</a> / <a href="mailto:sg_nema@yahoo.com">sg_nema@yahoo.com</a>	Nematology
33.	Dr. Naved Sabir	Principal Scientist, National Centre for Integrated Pest Management (ICAR), Lal Bahadur Shastri Building, Pusa Campus, New Delhi-110012, M: 9868589857, Res 011-25848064 E-mail: <a href="mailto:sabir@rediffmail.com">sabir@rediffmail.com</a> , <a href="mailto:navedsabir@yahoo.com">navedsabir@yahoo.com</a>	Nematology
34.	Dr. V.K. Santvan	Assistant Professor Environmental Sciences, Institute of Integrated Himalayan Studies, HPU, Shimla-171005 Tel: 0177-2633017, E-mail: <a href="mailto:santvan@hotmail.com">santvan@hotmail.com</a>	Ethnobotany

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35.	Prof. Bhoodev Vashishta	Dept. of Botany, Kurukshetra University, Thanesar, Haryana-136119 M: 09728529820, E-mail: bhoodev_vashishta@yahoo.co.in	Bryophytes & Ethnobotany
36.	Prof. N.S. Shekhavat (Retd.)	Dept. of Botany, J.V. Vyas University, Jodhpur-342 001 Ph: 0291-2722555, M: 09460429099 E-mail: biotechunit@satyam.net.in	Plant Ethnobotany
37.	Prof. Mohd. Anis	Dept. of Botany, Aligarh Muslim University, Aligarh-202 002, UP M: 09837305566, E-mail: anismohd37@gmail.com	Cytogenetics, Ethnobotany
38.	Dr. Veena Chandra	Scientist-F & Head, FRI, Deharadun-248001, Uttarakhand Tel: 0135-2224491, M: 09719139340, 09411752336 E-mail: chandrav@icfri.org	Plant Taxonomy/ Ethnobotany
39.	Dr. Dinesh Kumar	Sr. Scientist (Biotech), Cabin Division IASRI, Library Avenue Pusa Road, New Delhi-110012 Mobile : 08373926300, 09416111753 Email : <a href="mailto:dineshkumarbhu@gmail.com">dineshkumarbhu@gmail.com</a> / <a href="mailto:dineshkumarbhu@iasri.res.in">dineshkumarbhu@iasri.res.in</a>	Bioinformatics
40.	Dr. Anil Dhar	Scientist-D (Joint Director), Central Sericultural Research and Training Institute, Govt. of India, Pampore-192121 (J&K) Email : <a href="mailto:dranildhar@gmail.com">dranildhar@gmail.com</a>	Sericulture
41.	Prof. K. Yellamma	Sri. Venkateswara University, Tirupati-517502, Andhra Pradesh Mob:9885248629, Tel: Off No: 2289304 E-mail: kuna.y@svuniversity.ac.in, kuna_y2@yahoo.co.in	Sericulture
42.	Prof. V.P. Singh	Head, Dept. of Botany, University of Delhi, Delhi – 110007 Ph. : 011-27667573, 27667725 E-mail: vpsingh_biology@rediffmail.com	Plant Pathology/ Microbiology
43.	Prof. N.N. Tripathi	Dept. of Botany, Deen Dayal Upadhaya Gorakhpur University, Gorakhpur (U.P.) - 273009 M: 09450883779, E-mail: coe@ddugu.edu.in	Plant Pathology & Natural products
44.	Dr. Ram Kushal Singh	Head, Biotechnology Division, UP Council of Sugarcane Research, Shahjahanpur, 242001, UP M: 9415527526, E-mail: rks.upcsr@gmail.com	Plant Pathology
45.	Dr. Atul Singh	Joint Director, UP Council of Sugarcane Research, Shahjahanpur-242001, UP M: 09451979733	Plant Pathology
46.	Prof. Anupam Dixit	Dept. of Botany, University of Allahabad, Allahabad-211002, UP M: 09335108519, E-mail: anupambplare@rediffmail.com	Plant Pathology
47.	Dr. Shweta Saran	Associate Professor, School of Life Sciences, JNU, New Delhi-110067 Mobile : 9871382398 E-mail: <a href="mailto:shweta_saran@hotmail.com">shweta_saran@hotmail.com</a>	Animal Development Biology

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48.	Dr. Namita Agarwal	Associate Professor, Department of Zoology, Delhi University, Delhi-110007 M: 9717412612, E-mail: nagarwal@zoology.du.ac.in	Animal Developmental Biology
49.	Prof. Mushahid Alam Rizvi	Dept. of Biosciences, Jamia Milia Islamia, Jamia Nagar, New Delhi-110025 Mobile : 09911661657, E-mail: mrizvi@jmi.ac.in, rizvi_ma@yahoo.com	Cancer Biology
50.	Dr. Shashi Khare	Additional Director, National Centre for Disease Control (NCDC) 22, Sham Nath Marg, New Delhi-110 054 Tel No. (O): 91-11-23934517 E-mail : shashi.khare@hotmail.com	Virology
51.	Dr. Arvind Rai	Joint Director and HOD, Biochemistry and Biotechnology Division, National Centre for Disease Control (NCDC) 22, Sham Nath Marg, New Delhi-110 054 Tel No. (O) 011-23912960, M : 9810385357 Fax 011 23912960, E-mail : <a href="mailto:arvindrai_16@hotmail.com">arvindrai_16@hotmail.com</a>	Virology
52.	Dr. L. Kosygin Singh	Scientist 'C', Zoological Survey of India, 27-JL Nehru Road, Kolkata-700016 M: 0801742275, E-mail: ebrcsi@gmail.com	Fisheries
53.	Prof. Rina Chakrabarti	Dept. of Zoology, Delhi University, Delhi-110007 E-mail: aquaresearchlab@yahoo.co.in	Fisheries
54.	Prof. S.K. Kothari	Dept. of Botany, University of Rajasthan, Jaipur-302 004 M: 9829179692	Plant Tissue Culture
55.	Prof. P.S. Srivastava (Red.)	Department of Botany, Jamia Hamdard University, Hamdard Nagar, New Delhi-110062	Plant Tissue Culture
56.	Prof. S.B. Babbar	Department of Botany, University of Delhi, North Campus, Delhi 110007 Mobile 09810278024, 09968420972, Email babbars@rediffmail.com	Plant Development Biology & Tissue Culture
57.	Dr. Gouri Saxena	Associate Professor Dept. of Botany, Lucknow University, Lucknow-226007 M: 09415182051, E-mail: gaurigupta72@yahoo.com	Natural product & Biotechnology
58.	Prof. S. S. Hasan	School of Sciences, IGNOU	
59.	Prof. J. Sokhi	School of Sciences, IGNOU	
60.	Prof. G. Kaicker	School of Sciences, IGNOU	
61.	Prof. N. Kapoor	School of Sciences, IGNOU	
62.	Prof. A. Nigam	School of Sciences, IGNOU	
63.	Dr. B. Saidullah	School of Sciences, IGNOU	



**Panel of Experts for the Doctoral Committee for Mathematics**

S. No.	Name	Address	Area of Specialisation
1.	Prof. J. B. Srivastava (Retd.)	Emeritus Fellow Dept. of Mathematics, I.I.T. Delhi, Hauz Khas, New Delhi – 110016 Ph. : 9818867740 E-mail: <a href="mailto:jbsrivas@hotmail.com">jbsrivas@hotmail.com</a>	Abstract Algebra –group theory and its applications for Computer Imaging, Computer Vision
2.	Prof. Suresh Chandra (Retd.)	Dept. of Mathematics I.I.T. Delhi, Hauz Khas, New Delhi – 110016 Ph.: 9350887198 E-mail: <a href="mailto:chandras@maths.iitd.ac.in">chandras@maths.iitd.ac.in</a>	Mathematical Programming, Neural Networks, Optimization
3.	Prof. (Mrs.) G. Jayaraman (Retd.)	Centre for Atmospheric Sciences I.I.T. Delhi, Hauz Khas, New Delhi – 110016 Ph. : 26591945 (R) , 26591310 (O) E-mail: <a href="mailto:jgiriya@cas.iitd.ernet.in">jgiriya@cas.iitd.ernet.in</a> <a href="mailto:giriya.jayaraman@gmail.com">giriya.jayaraman@gmail.com</a>	Physiological Fluid Dynamics, Mathematical Methods, Marine Ecology, Biological Oceanography
4.	Prof. O. P. Bhutani (Retd.)	Dept. of Mathematics, I.I.T. Delhi <b>Res.:</b> B-1/1057, Sector-B, Pocket-1, Vasant Kunj, New Delhi-110070 Ph. : 9818476718	Differential Equations, Fluid Dynamics, Mathematical Methods
5.	Dr. K. Sreenadh	Dept. of Mathematics, I.I.T. Delhi, Hauz Khas New Delhi – 110016 Ph. : 26591470 (O), 26596974 (R) E-mail: <a href="mailto:sreenadh@maths.iitd.ernet.in">sreenadh@maths.iitd.ernet.in</a> <a href="mailto:sreenadh@gmail.com">sreenadh@gmail.com</a>	Differential Equations.
6.	Dr. Dinesh Kumar Khattar	Dept. of Mathematics, Kirori Mal College University of Delhi, Delhi – 110007 Ph. : 9810821948 E-mail: <a href="mailto:khattar_dinesh@yahoo.co.in">khattar_dinesh@yahoo.co.in</a>	Fluid Dynamics
7.	Dr. Rina Chakraborty	SQC & OR Unit, ISI, Delhi Ph. : 41493967 (O), 22425894 (R) E-mail: <a href="mailto:rina@isid.ac.in">rina@isid.ac.in</a>	Statistical Process Control Design of Experiments
8.	Prof. Manju Lata Agarwal	Dept. of Operations Research University of Delhi, Delhi – 110007 Ph. : 27666672	Reliability and Queueing Theory
9.	Prof. R. B. Bapat	Indian Statistical Institute 7, S.J.S. Sansanwal Marg, New Delhi – 110016 Ph. : 41493934 (O), 26852513 (R) E-mail: <a href="mailto:rbb@isid.ac.in">rbb@isid.ac.in</a> ; <a href="mailto:rbbaat@rediffmail.com">rbbaat@rediffmail.com</a>	Combinatorial Matrix Theory, Generalized Inverses
10.	Prof. R. Bhatia	Indian Statistical Institute 7, S.J.S. Sansanwal Marg, New Delhi – 110016 Ph. : 41493493 (O) E-mail: <a href="mailto:rbh@isid.ac.in">rbh@isid.ac.in</a>	Linear Algebra, Analysis of Hilbert Space Operators
11.	Prof. Abhay G. Bhatt	Indian Statistical Institute 7, S.J.S. Sansanwal Marg, New Delhi – 110016 Ph. : 41493927 (O) E-mail: <a href="mailto:abhay@isid.ac.in">abhay@isid.ac.in</a>	Probability Theory, Stochastic Processes

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12.	Prof. Arup Pal	Indian Statistical Institute 7, S.J.S. Sansanwal Marg, New Delhi – 110016 Ph. : 41493921 (O) E-mail: <a href="mailto:arup@isid.ac.in">arup@isid.ac.in</a>	Quantum Groups, Non-commutative Geometry, Operator Algebras, K-Theory
13.	Prof. Maneesh Thakur	Indian Statistical Institute 7, S.J.S. Sansanwal Marg, New Delhi – 110016 Ph. : 41493919 (O) E-mail: <a href="mailto:maneesh@isid.ac.in">maneesh@isid.ac.in</a>	Algebraic Groups and Related Structures
14.	Prof. Aloke Dey (Retd.)	Indian Statistical Institute 7, S.J.S. Sansanwal Marg, New Delhi – 110016 Ph. : 41493940 (O) E-mail: <a href="mailto:adey@isid.ac.in">adey@isid.ac.in</a>	Design of Experiments and Related Combinatorics, Linear Models, Sampling Theory
15.	Prof. Ajit Iqbal Singh	Indian Statistical Institute 7, S.J.S. Sansanwal Marg, New Delhi – 110016 Ph. : 41493922 (O) Mob:9212068046(M) E-mail: <a href="mailto:aisingh@isid.ac.in">aisingh@isid.ac.in</a>	Harmonic Analysis, Functional Analysis
16.	Prof. Phool Kaul (Retd.)	Faculty of Education Jamia Millia Islamia, New Delhi – 110025 Ph. : 9810633202 E-mail: <a href="mailto:drpkaul@gmail.com">drpkaul@gmail.com</a>	Math Education
17.	Prof. Amitabh Mukherjee	Dept. of Physics, Delhi University, Delhi -07 Ph: 9810187677	Math Education
18.	Prof. Mohd. Miyan	Jamia Millia Islamia, New Delhi – 110025 Presently Vice Chancellor, MANUU, Hyderabad Ph : 9810313634	Math Education
19.	Dr. H. K. Dewan <a href="mailto:vbsudr@yahoo.com">vbsudr@yahoo.com</a>	Education Secretary, Vidya Bhawan Society, Udaipur Ph. : 09414160815	Math Education
20.	Prof. Adimurthi	TIFR Centre, P.O. Box No. 1234, IISc Campus, Bangalore – 560012 E-mail: <a href="mailto:aditi@math.tifrbng.res.in">aditi@math.tifrbng.res.in</a>	PDE, Numerical Analysis
21.	Prof. G. D. Veerapa Gowda	TIFR Centre, P.O. Box No. 1234, IISc Campus, Bangalore – 560012 E-mail: <a href="mailto:gowda@math.tifrbng.res.in">gowda@math.tifrbng.res.in</a>	PDE, Numerical Analysis
22.	Dr. V. Ravichandran	Dept. of Mathematics, University of Delhi Ph. : 9999399857	Complex Function Theory
23.	Prof. Parvin Sinclair	Director, NCERT, Sri Aurobindo Marg New Delhi-68	Algebra, Math Education
24.	Prof. S. Kumaresan	School of Mathematics and Statistics, University of Hyderabad, Prof. C. R Rao Road, P.O. Central University, Hyderabad – 500046 , Ph: 09959094965	Differential Geometry, Analysis
25.	Prof. P. Mital	School of Sciences, IGNOU	
26.	Prof. S. Varma	School of Sciences, IGNOU	
27.	Dr. S. Venkatraman	School of Sciences, IGNOU	
28.	Dr. Deepika	School of Sciences, IGNOU	
29.	Shri Pawan Kumar	School of Sciences, IGNOU	



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## Panel of Experts for the Doctoral Committee for Physics

S. No.	Name	Address	Area of Specialisation
1.	Prof. S.K. Kulkarni	Indian Institute of Science Education Research Dr. Homi Bhabha Road, Pune 411008 Tel: +91-8888425978 e-mail: s.kulkarni@iiserpune.ac.in	Experimental Solid State Physics, Material Science, Nano materials
2.	Dr. D.K. Avasthi	Sc.H, Inter University Accelerator Centre Aruna Asaf Ali Marg, P.O. Box 10502, New Delhi 1100 67 Tel: +91-9818077001 Email:dka4444@gmail.com	Experimental Solid State Physics, Material Science, Nano materials
3.	Prof. S. Annapoorni	Department of Physics and Astrophysics, University of Delhi, Delhi – 110007 9871521718, 27315329 (R) Email:annapoornis@yahoo.co.in	Material Science
4.	Dr. Pushpa Upadhyay	Scientist –E-II, National Physical Laboratory, Pusa Road, New Delhi 110012. (M) +91-9212226526 Email: pushpau@yahoo.com	Experimental Solid State Physics
5.	Prof. R.M. Mehra	Professor Emeritus School of Engineering & Technology, Sharada University Plot No. 32,34, Knowledge Park 3, Greater Noida – 201306 Mob.:9971271374	Material Science & Electronics
6.	Dr. Santanu Ghosh	Asso. Prof., IIT Delhi, Hauz Khas, New Delhi-110016 Tel: 011-2659 1348 (O), 9811889061,26591911(R),65667952(R) Email: santanu1@physics.iitd.ac.in	Material Science
7.	Dr. Lekha Nair	Associate Professor, Physics Department, Jamia Millia Islamia, Jamia Nagar, New Delhi-110025 Tel: 2698463 ( O ),9810032194 Email: lnair@jmi.ac.in or lekhakpnair@yahoo.com	Material Science
8.	Prof. G.P. Das	Indian Association for the Cultivation of Sciences (IACS), 2A & 2B Raja S.C. Mullick Road, Kolkata – 700032 Tel: +91-9433192231 Email: msgpd@iacs.res.in	Material Science, Experimental Solid State Physics
9.	Prof. R. P. Tandon	Dept. of Physics & Astrophysics , University of Delhi, Delhi Tel: 27667725(O), 28547877(R), 9818229608 Email: rptandon9@physics.du.ac.in	Material Science, Experimental Solid State Physics
10.	Prof. Vinay Gupta	Dept. of Physics & Astrophysics, University of Delhi, Delhi Tel: 9811563101 Email: vgupta@du.ac.in	Material Science, Experimental Solid State Physics
11.	Prof. G.S. Singh	Department of Physics, I.I.T. Roorkee Tel: 0133-276710(R), 09412072298 Email: gssaafph@iitr.ac.in	Theoretical Condensed Matter Physics

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12.	Prof. D. G. Kanhere	Centre for Modelling and Simulations, University of Pune, Pune - 411007 Resi: 7 Sagar Apartment, Erandawane, Pune 411004 Tel: +91-9421006705 Email: dgkanhere@gmail.com	Theoretical Condensed Matter Physics
13.	Dr. Varsha Banerjee	Associate Professor, Department of Physics, IIT, Delhi, New Delhi – 110016. Tel: +91-11-2659 1335 (O) Email: varsha[at]physics.iitd.ac.in	Theoretical Condensed Matter Physics
14.	Prof. Tabish Quereshi	CTP, Jamia Millia Islamia, Delhi Tel. : 0091-11-26984830 Ext. 22 Email: tabish@ctp-jamia.res.in	Theoretical Physics
15.	Prof. Pankaj Sharan	Dept. of Physics, Jamia Millia Islamia, Delhi Tel: 26984631 Email: psharan@jmi.ac.in	Physics Education
16.	Prof. V.B. Bhatia (Retd.)	University of Delhi, Delhi Res.: 215, Sector -21 A, Faridabad, Haryana Mob.: 9810470839 Email: vbbhatia@yahoo.com	Physics Education
17.	Dr. Pratibha Jolly	Principal, Miranda House, University of Delhi, Delhi Tel: 011 - 27666983, 27667437, 27667367 Mob: 9811600389 Email: pratibha.jolly@gmail.com	Physics Education
18.	Dr. Vijay Raybagkar	Dept. of Physics, Nowrosjee Wadia College, No. 19, V. K Joag Path, Pune-411001 Res.:202, Bhoop Apartments, 9A/1, Deccan College Road, Yerwada, Pune-411006 Tel: 09822622072 Email: raybagkars@gmail.com	Physics Education
19.	Dr. Kirti Ranjan	Associate Professor, Dept. of Physics & Astrophysics, University of Delhi, Delhi -110007 (M) 9871622398 Email: kirti.ranjan@cern.ph	Nuclear Physics, Experimental High Energy Physics
20.	Prof. Prabhat Munshi	Dept. of Mechanical Engineering NETP, IIT Kanpur, Kanpur Tel: 91+512 2597243(O), 91+512 2598573(R) Email: pmunshi@iitk.ac.in	Nuclear Reactor Physics
21.	Dr. Ompal Singh, Visiting Professor	NETP/ME, IIT Kanpur Resi: A-7 VFA, IIT Kanpur, Kanpur 208016, UP Tel: +91-8874299320 Email: singhompal@yahoo.com / singhop@iitk.ac.in	Reactor Physics
22.	Prof. Feroz Ahmed (Retd.)	Department of Physics & Astrophysics, University of Delhi, Delhi-110 007 Mob.: 9312610532 Email: profferoz@gmail.com	Neutron Physics and Reactor Physics
23.	Prof. G. Mishra	Department of Physics Devi Ahilya Vishwavidyalay, Khandwa Road, Indore-452001 Email: gmishra_dauniv@yahoo.com 09893398807(M)	Plasma Physics

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24.	Prof. V.K. Tripathi (Retd.)	Dept. of Physics, IIT, Delhi Tel: 011-26581737(R), 011-26591931(R) Email: tripathivipin@yahoo.co.in	Plasma Physics
25.	Prof. V. K. Jain	Vice Chancellor, Doon University Email: vkj0400@mail.jnu.ac.in ; vkj0400@hotmail.com Tel: 9868585788(M), 08755244111(M)	Plasma Physics
26.	Prof. R.P. Sharma	Centre for Energy Studies(CES), I.I.T. Delhi, New Delhi -16 Email : rpsharma@ces.ernet.ac.in Tel: 26591257(O), 26591259(O)	Plasma Physics
27.	Prof. S.C. Sharma	Dept. of Applied Physics, Delhi Technological University Shahbad Daulatpur, Main Bawana Road, Delhi-110042 Email: suresh321sharma@gmail.com	Plasma Physics
28.	Prof. Rabindranath Pal	Plasma Physics Division, Saha Institute of Nuclear Physics, 1/AF, Bidhan Nagar, Kolkata – 700064	Plasma Physics
29.	Prof. S. C. Garg	School of Sciences, IGNOU	
30.	Prof. Vijayshri	School of Sciences, IGNOU	
31.	Prof. S. R. Jha	School of Sciences, IGNOU	
32.	Dr. S. M. Gokhale	School of Sciences, IGNOU	
33.	Dr. S. Gupta	School of Sciences, IGNOU	
34.	Dr. S. Lamba	School of Sciences, IGNOU	

## Panel of Experts for the Doctoral Committee for Statistics

S. No.	Name	Address	Area of Specialisation
1.	Prof. Alok Dey	Senior INSA Scientist and Honorary Visiting Professor, R. No: 216, Theoretical Stat. and Math. Unit, ISI, New Delhi Phone: +91-11-4149-3940; Email: adey@isid.ac.in	Linear Models and Sampling Techniques
2.	Prof. U. C. Sud	Head , Sample Survey Division, IASRI, PUSA Road, Library Avenue, New Delhi – 110012 Phone: 91-11-25841475 Email : ucsud@iasri.res.in	Sample Survey and Agricultural Statistics
3.	Prof. V. K. Singh	Dept. of Statistics, Banaras Hindu University, Varanasi (U.P.) Phone: (O) 0542-2307330, 0542-6702905 Email: <a href="mailto:vij_4951@rediffmail.com">vij_4951@rediffmail.com</a> <a href="mailto:vijay_usha_2000@yahoo.com">vijay_usha_2000@yahoo.com</a> ;	Sampling Design and Demography
4.	Prof. S. Sampath	Dept. of Statistics, University of Madras, Chepauk Campus, Chennai - 600 005 Phone: 044-25399768; Mobile: 9840200275 Email: sampath@unom.ac.in	Sampling Theory and Data Mining
5.	Prof. G. N. Singh	Dept. of Applied Maths, I S M University, Dhanbad (JH) Mob. No: 09431711004 Email: gnsingh@gmail.com	Sampling Techniques and Statistical Inference
6.	Prof. Girja Kant Shukla	Retd. Prof. (IIT Kanpur), B-1/99 Sector-K, Kamayani Park, Aliganj, Lucknow-226024 Mob.: 09451144474; Phone: 0522-4029478 Email: <a href="mailto:gkshukla78@gmail.com">gkshukla78@gmail.com</a>	Time Series Modeling and Reliability Theory
7.	Prof. Diwakar Shukla	Dept. of Maths & Statistics, Dr. H.S. Gaur Central University, Sagar (MP)	Sampling Design, Small Area Estimation

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		Mob. No: 09425437203 Email: <a href="mailto:diwakarshukla@rediffmail.com">diwakarshukla@rediffmail.com</a>	and Network Theory
8.	Prof. Rakesh Srivastava	Dept. of Statistics, M. S. University of Baroda, Vadodara Mob. No: 09824313066 Email: <a href="mailto:rakeshshrivastava30@yahoo.co.in">rakeshshrivastava30@yahoo.co.in</a>	Sampling Theory and Statistical Inference
9.	Prof. Niladri Chatterjee	Room: MZ167, Dept. of Mathematics, IIT Delhi, New Delhi Email: niladri@maths.iitd.ac.in	Statistical Modeling and Semantic Wave
10.	Prof. H. P. Singh	School of Studies in Statistics, Vikram University, Ujjain -456010 Mob.: 08435921942 Email: <a href="mailto:hpsujn@rediffmail.com">hpsujn@rediffmail.com</a>	Sampling Design and Simulation Techniques
11.	Prof. Meenakshi Srivastava	Dept. of Statistics, Institute of Social Sciences, Dr. B. R. Ambedkar University, Agra (UP) Mob. No: 09927087633 Email: msrivastava_iss@hotmail.com	Sampling Theory, Stochastic Modeling, and Operations Research
12.	Prof. L. N. Sahoo	Dept. of Statistics, Utkal University, Bhubaneswar -751004 Email: <a href="mailto:lnsahoostatuu@rediffmail.com">lnsahoostatuu@rediffmail.com</a>	Sampling Theory
13.	Prof. Vyas Dubey	Dept. of Statistics, Pt. Ravishankar Shukla University, Raipur (CG) - 492010 Mob. No: 09926115054 Email: <a href="mailto:dubey_vyas@rediffmail.com">dubey_vyas@rediffmail.com</a>	Sampling Design and Estimation Theory
14.	Dr. Gurpreet Grover	Dept. of Statistics, Delhi University, Delhi Phone: 27666671 Ext. 306, E mail: <a href="mailto:gurpritgrover@yahoo.com">gurpritgrover@yahoo.com</a>	Bio Statistics, Demography
15.	Dr. Rajesh Tailor	School of Studies in Statistics, Vikram University, Ujjain (M.P.)-456010 Mob. No: 09630295223 Email: <a href="mailto:tailorraj@gmail.com">tailorraj@gmail.com</a>	Sampling Techniques
16.	Dr. Jayant Dubey	Head, Dept. of Business Studies, BTIRT, Sironja, Sagar(M.P.) Mob. No: 09827245404 Email: <a href="mailto:drjayantdubey@gmail.com">drjayantdubey@gmail.com</a>	Sampling Design and Statistical Inference
17.	Prof. V. L. Mandowara	Dept. of Mathematics and Statistics, Faculty of Sciences, Mohanlal Sukhadia University, Udaipur-313001 2413955, 2412009, Extn 231	Sample Survey and Estimation Techniques
18.	Prof. S. K. Pandey	Dept. of Statistics, Lucknow University, Lucknow-226007 Email: <a href="mailto:pandey_sk@lkouniv.ac.in">pandey_sk@lkouniv.ac.in</a> Phone: 0522- 2788377 Mobile: 09415046460	Sampling Design
19.	Prof. H. S. Jhaji	Dept. of Statistics, Punjabi University, Patiala-147002 Ph: 0175-2285656(R); Mob:9417462856 Email: <a href="mailto:drhsjhaji@yahoo.co.in">drhsjhaji@yahoo.co.in</a>	Sample Survey
20.	Prof. R. K. Tuteja	Retd. Professor (M. D. University), H. No. 69R2, Model Town, Rohtak (HR)-124001 Mob.: 09416492219 Email: <a href="mailto:rktuteja_2006@yahoo.com">rktuteja_2006@yahoo.com</a>	Sampling Theory
21.	Dr. Manish Trivedi	School of Sciences, IGNOU	
22.	Dr. Neha Garg	School of Sciences, IGNOU	
23.	Shri R. Kaliraman	School of Sciences, IGNOU	
24.	Shri P. K. Sangal	School of Sciences, IGNOU	

- Item no. 9: To consider and approve the lists of examiners of the thesis of five scholars registered in the PhD (Life Sciences) programme, namely, Ms. Sujata Sinha (Enrol. No. 112247180), Ms. Kavitha. S. (Enrol. No. 100165542), Mrs. Emon Chatterjee (Enrol. No. 122878080), Mr. Ravi Kant (Enrol. No. 122877744) and Mr. Sujeet Pratap Singh (Enrol. No. 12247126).**
- SB 50.9.1 While considering the lists of examiners of the PhD thesis of five scholars registered in the PhD (Life Sciences) programme, namely, Ms. Sujata Sinha (Enrol. No. 112247180), Ms. Kavitha. S. (Enrol. No. 100165542), Mrs. Emon Chatterjee (Enrol. No. 122878080), Mr. Ravi Kant (Enrol. No. 122877744) and Mr. Sujeet Pratap Singh (Enrol. No. 12247126), the School Board advised that care may be taken that there are no overlaps in the names being suggested. It was also decided that the approved lists of examiners would not be circulated as a part of the Minutes but be forwarded confidentially to the Research Unit.
- SB 50.9.2 The School Board approved the lists of examiners subject to the above advice. The details of the five PhD scholars are placed at **Annexures 6a to e**.
- Item no. 10: To consider and approve the lists of examiners of the thesis of three scholars registered in the PhD (Chemistry) programme, namely, Mr. Imtiyaz Hussain Lone, Mr. Vinayak Adimule and Mr. Ramil Kumar Bhardwaj.**
- SB 50.10.1 The lists of examiners of the PhD theses of Mr. Imtiyaz Hussain Lone (**Enrolment No. 118701694**), Mr. Vinayak Adimule (**Enrolment No. 127722788**) and Mr. Ramil Kumar Bhardwaj (**Enrolment No. 1122473348**) were placed for the consideration and approval of the School Board.
- SB 50.10.2 The School Board approved the lists of examiners with the advice that the approved lists would not be circulated as a part of the Minutes but be forwarded confidentially to the Research Unit. The details of the scholars are placed at **Annexures 7a to c**.
- Item no. 11: To consider and approve the names of Prof. C.K. Varshney and Prof. P.B. Kavi Kishor as Editors of the first level B. Sc. Electives in Life Sciences entitled Ecology and Genetics, respectively that are currently under revision.**
- SB 50.11.1 The School Board was informed that the first level B.Sc. Elective courses in Life Sciences entitled Ecology and Genetics, respectively, of 4 credits each were under revision and approval of Editors of the courses was being sought.
- SB 50.11.2 The School Board approved the following experts as Editors of these courses:
1. Prof. C. K. Varshney (Retd.)                      Editor (**Ecology**)  
Former Dean, School of Environmental Sciences, JNU, New Delhi  
Res.: 88, Vaishali, Pitampura, Delhi-110034
  2. Prof. P.B. Kavi Kishor,                              Editor (**Genetics**)  
Department of Genetics,  
Osmania University, Hyderabad- 500 007

**Item no. 12: To consider and approve the name of Dr. Kishore Kumar, Scientist, Wadia Institute of Himalayan Geology, Dehradun as Language Editor for B.Sc. (Geology) elective course (BGY-002).**

SB 50.12.1 The School Board was informed that the content and format editing of the B.Sc. elective in Geology entitled Strata and Prehistoric Life (BGY-002) was under process and approval of the School Board was being sought for the name of Language Editor for the course.

SB 50.12.2 The School Board approved the following expert as Language Editor:

Dr. Kishore Kumar  
Scientist 'G' & Head, Paleontology & Biostratigraphy Group, Wadia Institute of Himalayan Geology, 33, General Mahadeo Singh Road, Dehradun 248001  
Tel. 91-135-2525267 (office), 91-135-2763980 (residence); 91-135-2625212 (fax)  
Email: kumark@wihg.res.in; kishorsri@gmail.com

**Item no. 13: To consider and recommend the name of Dr. Ramashray Prasad as course writer for the course on "Introduction to Quantitative Techniques in Geography" (BGGL-003).**

SB 50.13.1 The School Board was informed that the Geography discipline was engaged in developing course materials for B.Sc. electives in Geography and had proposed the name of Dr. Ramashray Prasad as course writer for the course entitled "Introduction to Quantitative Techniques in Geography" (BGGL-003).

SB 50.13.2 The School Board recommended the name of Dr. Ramashray Prasad as course writer for the course entitled "Introduction to Quantitative Techniques in Geography" (BGGL-003):

Dr. Ramashray Prasad  
Associate Professor, Department of Geography,  
B. R. Ambedkar College, Main Wazirabad Road, Yamuna Vihar, Delhi-110094  
Contact- 0120-2648341, (M) 9868593193; 9458023693  
E-mail: [drprasad2007@gmail.com](mailto:drprasad2007@gmail.com)

**Item no. 14: To consider and recommend the lists of paper setters, evaluators and members of the Moderation Board for the PGCGI programme.**

SB 50.14.1 The School Board was informed that the Post Graduate Certificate in Geoinformatics (PGCGI) had been launched in the July, 2014 admission cycle. The programme consists of three theory courses, namely, Introduction to Geoinformatics (MGY-001), Remote Sensing and Image Interpretation (MGY-002), Global Navigation satellite System and Geographic Information System (MGY-003) and one practical course Geoinformatics Practical (MGYL-004). The names of paper setters, members of Moderation Board for the courses were placed for the

recommendations of the School Board. The School Board advised that the lists be expanded by including the names of the in-house Faculty members who possessed expertise in the area.

SB 50.14.2 The School Board recommended the names of paper setters, evaluators and members of Moderation Board for the theory courses MGY-001, MGY-002 and MGY-003 and the list of examiners for the Lab course MGYL-004. The lists recommended by the School Board are placed at **Annexures 8a to c**.

**Item no. 15: To consider and recommend the list of evaluators for the course “Teaching of Primary School Mathematics” (AMT-01 Theory) for BDP/CTPM programme.**

SB 50.15.1 The updated list of evaluators of the course AMT-01 of the BDP/CTPM programme as proposed by the Mathematics Discipline was placed for the consideration and approval of the School Board. The School Board advised that the criteria laid down in the Ordinance for evaluators may be followed for all Programmes in the School. Accordingly, the list of evaluators was curtailed.

SB 50.15.2 The list of evaluators for the course “Teaching of Primary School Mathematics” (AMT-01 Theory) for BDP/CTPM programme in accordance with the Ordinance and as recommended by the School Board is placed at **Annexure 9**.

**Item no. 16: To consider and recommend the additional list of Examiners for the project course (MMTP-001) of M.Sc. (MACS) programme.**

SB 50.16.1 The following additional list of examiners for the project course (MMTP-001) from the Delhi, Ranchi, Kolkata, Pune, Chennai and Jabalpur Regions was recommended by the School Board.

**Additional list of Examiners for Project course (MMTP-001) of M.Sc. (MACS) programme**

<b><u>Examiners from Delhi Region</u></b>			
1	<b>Ms. Vibha</b> Dept. of Computer Science & Engineering Indira Gandhi Technical University for Women, Kashmere Gate, Delhi – 110 006 Ph. No.: 9911213009 <b>(C-Programing and Data Structure, Computer Graphics, Image Processing)</b>	2	<b>Ms. Nazme Zehra</b> Dept. of Computer Science & Engineering Indira Gandhi Technical University for Women, Kashmere Gate, Delhi – 110 006 Ph. No.: 9810026433 <b>(C-Programing and Data Structure, Soft Computing)</b>
3	<b>Dr. Aditi Sharan</b> School of Computer & Systems Sciences J.N.U., New Delhi – 110 067 Ph. No.: 9871084192 Email: <a href="mailto:aditisharan@mail.jnu.ac.in">aditisharan@mail.jnu.ac.in</a> <b>(C-Programing and Data Structure)</b>	4	<b>Mr. Pawan Kumar</b> D-130, School of Sciences, IGNOU New Delhi – 110 068 Ph. No.: 9711446584, 29572831 (O) Email: <a href="mailto:pawankumar@ignou.ac.in">pawankumar@ignou.ac.in</a> <b>(C-Programing and Data Structure)</b>

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<b>Examiners from Ranchi Region</b>			
1	<b>Dr. Vandana Bhattacharjee</b> Dept. of Computer Science & Engineering Birla Institute of Technology, Lalpur Extension Centre, Lalpur, Ranchi – 834 001 <b>Res.:</b> Flat No.: 604, Anand Apartments 21, Circular Road, Lalpur, Ranchi – 834 001 Ph. No.: 9431596469, 9234302240 Email: <a href="mailto:vbhattcharya@bitmesra.ac.in">vbhattcharya@bitmesra.ac.in</a> <a href="mailto:vbhattacharjee@ieec.org">vbhattacharjee@ieec.org</a> <b>(C-Programing and Data Structure, Computer Graphics, Soft Computing, Graph Theory)</b>	2	<b>Mr. Raja Ram Dutta</b> Dept. of Computer Science P. P. K. College, Ranchi – 834 001 <b>Res.:</b> Flat No.: 1-B Surendra Nath Apartments 10 R. G. Street, Pharpakna, Ranchi – 834 001 Ph. No.: 9431353340, 0651-2210250 (R) <b>(C-Programing &amp; Data Structure, Image Processing)</b>
3	<b>Mr. Mukul Priyadarshi</b> Dept. of Mathematics Central University of Jharkhand, Brambe, Thakurgaon Road, Jharkhand – 835 205 Ph. No.: 09031860636 <b>(C-Programing &amp; Data Structure)</b>		

<b>Examiner from Kolkata Region</b>	<b>Examiner from Pune Region</b>	<b>Examiner from Chennai Region</b>
<b>Mr. Pradipta Roy</b> Dept. of Computer Science & Engineering Swami Vivekananda Institute of Science & Technology, Dakshin Gobindapur P.S. Sonarpur, Kolkata – 700 145 <b>Res.:</b> 1/B Jiban Krishna Chatterjee Road Opp. Kali Shankar Apartments, School Road, P.O. Sodepur, Kolkata – 700 110 Ph. No.: 9433866673, 033-25658998 (R) Email: <a href="mailto:prodeeptoroy@yahoo.com">prodeeptoroy@yahoo.com</a> <a href="mailto:pradiptoroy@gmail.com">pradiptoroy@gmail.com</a> <b>(C-Programming and Data Structure, Graph Theory, Design and Analysis of Algorithm)</b>	<b>Dr. Vikas T. Humbe</b> JSPM Abacus Institute of Computer Application, Pune – 411 007 Ph. No.: 9326792524 Email: <a href="mailto:vikashumbe@yahoo.co.in">vikashumbe@yahoo.co.in</a> <b>(C-Programming and Data Structure, Image Processing)</b>	<b>Mr. Regin Bose</b> Dept. of Computer Science & Engineering Arignar Anna Institute of Science and Technology, Penaloore, Sri Perumputur Chennai Ph. No.: 9445281992 Email: <a href="mailto:reginbose@yahoo.com">reginbose@yahoo.com</a> <b>(C-Programming and Data Structure, Computer Graphics, Design and Analysis of Algorithm)</b>

<b>Examiners from Jabalpur Region</b>			
1.	<b>Dr. J. K. Maitra</b> Dept. of Mathematics R. D. University, Jabalpur, Saraswati Vihar, Pachpedi, Jabalpur-482 001 Ph. No.: 09826187481, 761-2603172 (O) 4045752 (R) <b>(Graph Theory, Soft Computing)</b>	2.	<b>Dr. R. K. Pandey</b> Dept. of Mathematics, R. D. University, Jabalpur, Saraswati Vihar, Pachpedi, Jabalpur - 482 001 Ph. No.: 09424395377, 0761-2603869 (O) 2605012 (R) <b>(C-Programming &amp; Data Structure, Computer Graphics, Image Processing)</b>
3.	<b>Mr. Vijay Tiwari</b> Dept. of Mathematics, R. D. University, Jabalpur, Saraswati Vihar, Pachpedi, Jabalpur - 482 001 Ph. No.: 09424344567 <b>(C-Programming &amp; Data Structure, Computer Graphics)</b>		



**Item no. 17: To consider and approve the names of experts for the review of the BDP mathematics elective course – Numerical Analysis (MTE-10).**

SB 50.17.1 The School Board was informed that the BDP mathematics elective entitled Numerical Analysis (MTE-10) had to be revised. The approval of the School Board was being sought for the names of experts proposed by the Mathematics Discipline Group to review the course.

SB 50.17.2 The School Board approved the names of the following experts to review the BDP course entitled Numerical Analysis (MTE-10) in the light of the current trends and to ascertain whether the credit assigned to the course is appropriate:

**Experts for the review of the BDP mathematics course entitled Numerical Analysis**

1. Dr. P. K. Pandey  
Associate Professor, Dept. of Mathematics  
Dyal Singh College, University of Delhi,  
**Res.:** 77, Jyoti Apartments, Pitampura, New Delhi – 110 034  
**Ph. No.:** 9910206270, 27034155 (R)
  
2. Dr. K. R. Kalra (Retd.)  
Associate Professor, Dept. of Mathematics, University of Delhi,  
**Res.:** 69, H.I.G. Duplex, Chandan Nagar, Dist. Ghaziabad – 201 011  
**Ph. No.:** 9818690589

**Item no. 18: To consider and approve the names of the experts for Review of the Certificate Programme in Laboratory Techniques and the Courses LT-1, LT-2, LT-3 and LT-4 of the CPLT.**

SB 50.18.1 The School Board was informed that the **Certificate Programme in Laboratory Techniques** (CPLT) had been on offer since July, 2001 to cater to the needs of all those aspiring to get jobs in Science Labs as laboratory assistant/Lab attendant and their professional development. The programme was expected to draw a good enrolment. However, it had been observed that over the years, the enrolment has been gradually decreasing. Moreover, the success rate of the students had been declining steadily. The School Board of School of Sciences in its 47<sup>th</sup> meeting held on 12<sup>th</sup> September, 2013 advised the Programme team to initiate the process of Programme Evaluation in view of low enrolment and low success rate. Consequently the Programme Coordination Team prepared two questionnaires to gather feedback from the learners and the Academic Counsellors of this programme. The programme team proposed to review the programme with the help of experts through questionnaires and in meetings and had sought approval of the Board for the names of Experts for Programme Experts Committee and Course Expert Committees of different courses.

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SB 50.18.2 The School Board approved the following lists of Experts for the review of the Programme and the courses:

## List of Experts for Programme Expert Committee of CPLT

S. No.	Name	Address
1.	Prof. S. C. Garg	School of Sciences, IGNOU
2.	Prof. B. S. Saraswat	School of Sciences, IGNOU
3.	Prof. S. S. Hasan	School of Sciences, IGNOU
4.	Dr. Swadesh Taneja	Associate Professor (Retired), School of Sciences, IGNOU Res.: D 55, Saket, New Delhi-110017 Res. :011-40545010; Mobile : 9350333274
5.	Dr. Bharti Sarkar	Reader (Retired), Maitreyi College, Univ of Delhi Pocket 40/186 Chittaranjan Park, New Delhi-110019 Ph. 41600238/39
6.	Dr. Parveen Garg	Associate Professor (Botany), Swami Shraddhanand College, Delhi-110036 Mobile: 9811226923; E-mail: <a href="mailto:parveenssn@yahoo.co.in">parveenssn@yahoo.co.in</a>
7.	Dr. Balram Pani Associate Professor	Bhaskaracharya College of Applied Sciences, Dwarka, Mob:9813099610, 9841069672
8.	Dr. R. Venkataraman (Retd.)	K M College, University of Delhi C-5/23, Safadarjang Development Area, New Delhi –110016. Mob. : 9810025743; 99686732403
9.	Dr. Lalita S. Kumar	School of Sciences, IGNOU
10.	Prof. Neera Kapoor	School of Sciences, IGNOU
11.	Prof. S. R. Jha	School of Sciences, IGNOU

## List of External Experts for review of LT-01

S. No.	Name	Address
1.	Dr. Tanushree Saxena	Associate Professor (Zoology) Swami Shradhanand College, Alipur, Delhi-110036 Res.:011-23845783; Mobile : 9971024320; Email : <a href="mailto:tanushreesaxena@gmail.com">tanushreesaxena@gmail.com</a>
2.	Dr. SwadeshTaneja (Retd.)	Associate Professor School of Sciences, IGNOU; Res.: D 55, Saket, New Delhi-110017 Res. :011-40545010; Mobile : 9350333274
3.	Dr. Bharti Sarkar (Retd.)	Reader, Maitreyi College; Res.: Pocket 40/186 Chittaranjan Park, New Delhi-110019 Ph. 41600238/39
4.	Dr. K.K. Arora	Dept. of Chemistry, Zakir Hussain College, New Delhi- 110 006 Mob: 9810837517, 22784544; Email: <a href="mailto:kaykayarora@hotmail.com">kaykayarora@hotmail.com</a>

## List of External Experts for review of LT-02

S. No.	Name	Address
1.	Dr. Anil K. Bali	Associate Professor (Zoology), Bhaskaracharya College of Applied Sciences Sec. 2 A, Dwarka, New Delhi-110077 Mobile: 9810696967; E-mail: <a href="mailto:dnaanil@yahoo.co.in">dnaanil@yahoo.co.in</a>
2.	Dr. Gurdeep Singh Virdi (Retd.)	Associate Professor, Zoology, Sri Guru Tegh Bahadur Khalsa College, Delhi-110007 Res.: 011-25257345, Mobile: 9810529849; E-mail: <a href="mailto:virdigurdeep@yahoo.com">virdigurdeep@yahoo.com</a>
3.	Dr. Inderdeep Kaur	Associate Professor (Botany), Shri Guru Tegh Bahadur Khalsa College, Delhi-110007 Res.: 011-27429342; Mobile: 9818109843;
4.	Dr. Parveen Garg	Associate Professor (Botany), Swami Shraddhanand College, Delhi-110036 Mobile: 9811226923; E-mail: <a href="mailto:parveenssn@yahoo.co.in">parveenssn@yahoo.co.in</a>

**List of External Experts for review of LT-03**

S. No.	Name	Address
1.	Dr. G. K. Parashar	Associate Professor, Swami Shraddhanand College, Delhi-110036 Mob:9868479470
2.	Dr. Balram Pani	Associate Professor, Bhaskaracharya College of Applied Sciences, Dwarka, Mob:9813099610. 9841069672
3.	Dr. Chandana Mukherjee	Associate Professor, Gargi College, University of Delhi, New Delhi Mob:9818563716
4.	Dr. P.D. Sharma	Jawahar Lal Nehru Govt. College, Faridabad; <b>Res.:</b> Flat No. 104, Sanskrita Apartment, Sanskrit Cooperative Group Society, GH-3, Sector-46, Faridabad

**List of External Experts for review of LT-04**

S. No.	Name	Address
1.	Prof. V.B. Bhatia (Retd.)	Dept. of Physics and Astrophysics, University of Delhi; <b>Res.:</b> 215/21A Sector, Faridabad -121001 Mob. 9810470839
2.	Dr. Krishna Mehra (Retd.)	Gargi College, University of Delhi, Delhi <b>Res.:</b> 122, Deshbandhu Apartments, Kalkaji, New Delhi-110019 Mob. : 9810211793
3.	Dr. R. Venkataraman (Retd.)	K M College, <b>Res.:</b> C-5/23, Safadarjang Development Area, New Delhi –110016. Mob. : 9810025743; 99686732403
4.	Dr. Alka Garg	Department of Physics, Gargi College, University of Delhi, Delhi-110049 Mob. 9811481110

**Item no. 19: To consider and approve the list of the members of Expert Committee for the Appreciation Course on Environment (ACE).**

SB 50.19.1 The School Board was informed that the **Appreciation Course on Environment (ACE)** was offered by IGNOU with an aim to bring about awareness and environmental consciousness among professionals ranging from journalists to personnel working in the field of environment and sustainable development as well as home makers and citizens interested in environment related issues. However, the enrolment pattern in the course has not shown any increase from double digit. In order to decide the future course of action on the Course, the approval of the Board was being sought for the Expert Committee to review it and recommend the future course of action.

The School Board discussed the names and suggested that one Faculty member of IGNOU in Environmental Sciences be involved and some experts working in NGOs active in the field of environment also be included.

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SB 50.19.2 The School Board approved the following names of External Experts as members of the Expert Committee for the Appreciation Course on Environment (ACE).

S.No.	Name	Address
1.	Prof. C.K. Varshney (Retd.) Former Dean	School of Environmental Sciences, JNU, New Delhi-67 Res.: 88, Vaishali, Pitampura, Delhi-110034 011- 27313388 (Landline); 9818547904 (Mobile)
2.	Dr Dinesh Kumar Sharma Principal Scientist	Division of Environmental Sciences, NRL Building, IARI (PUSA), New Delhi-12 9899889565 (Mobile)
3.	Prof. J. Behari Former Dean	School of Environmental Sciences, JNU, New Delhi-67 Res.: D/48, Ansari Nagar (East), AllMS Campus, New Delhi-110029 011-26593934(Landline); 9810878873(Mobile)
4.	Prof. A.K. Bhatnagar (Retd.)	Department of Botany, University of Delhi, Delhi-07 Res.: JA/4B, Ashok Vihar-I(Res.), Delhi-110052 9810376885 (Mobile)
5.	Ms. Sunita Narain	Director General, Centre for Science and Environment, Delhi
6.	Dr. Shachi Shah	School of Agriculture, IGNOU

**Item no. 20: To consider and approve the list of the members of the Programme Expert Committee and the evaluation methodology for the PG Diploma in Applied Statistics (PGDAST) programme.**

SB 50.20.1 The School Board was informed that the **PG Diploma in Applied Statistics (PGDAST)** was likely to be launched in the January, 2015 admission cycle. The School Board's approval was being sought for the names of Experts in the Programme Expert Committee which would advise the Faculty on various academic matters as well as on issues related to the implementation of the programme. The Board approved the following names of Experts for the Programme Expert Committee for the PG Diploma in Applied Statistics (PGDAST):

S.No.	Name	Address, Phone No. and Email Id
1.	Prof. Rakesh Srivastava	Department of Statistics, M. S. University of Baroda, Vadodara (GUJ) Email: <a href="mailto:rakeshshrivastava30@yahoo.ac.in">rakeshshrivastava30@yahoo.ac.in</a> Mob.: 09824313066
2.	Prof. Rahul Roy	Stat. Math. Unit, Indian Statistical Institute, New Delhi Email: <a href="mailto:rahul@isid.ac.in">rahul@isid.ac.in</a> Phone: 011-41493905
3.	Prof. Rajendra Prasad	Head, Design of Experiment Division , I. A. S. R. I., Pusa Road, New Delhi PH.: 91-11-25843573 Email: <a href="mailto:rajender@iasri.res.in">rajender@iasri.res.in</a>

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4.	Prof. Kishore K. Das	Department of Statistics, Gauhati University, Guwahati (Assam) -781014, India Email: <a href="mailto:daskkishore@gmail.com">daskkishore@gmail.com</a> Mob: 09435041644
5.	Prof. R. M. Pandey	Head, Department of Bio-Statistics, AIIMS, New Delhi PH.: 011-26593240 Email: <a href="mailto:rmpandey@yahoo.com">rmpandey@yahoo.com</a>
6.	Prof. Jagdish Prasad	Head, Department of Statistics, University of Rajasthan, Jaipur Email: <a href="mailto:prasad-jagdish@uniraj.ernet.in">prasad-jagdish@uniraj.ernet.in</a> Phone: 0141-2708560
7.	Prof. Kalpana K. Mahajan	Department of Statistics, Panjab University, Chandigarh Email: <a href="mailto:mahajan_kr@pu.ac.in">mahajan_kr@pu.ac.in</a> Mob: 09888558800
8.	Prof. G. N. Singh	Department of Applied Maths, Indian School of Mines, Dhanbad (JH) Email: <a href="mailto:gnsingh@gmail.com">gnsingh@gmail.com</a> Mob.: 09415343030
9.	Prof. Diwakar Shukla	Dept. of Maths & Statistics, Dr. H.S. Gaur University, Sagar (M.P) Email: <a href="mailto:diwakarshukla@redifmail.com">diwakarshukla@redifmail.com</a> Mob.: 09425437203
10.	Prof. Gulshan Lal Taneja	Dept. of Mathematics, M. D. University, Rohtak (HR) - 124001 E-mail: <a href="mailto:drgtaneja@gmail.com">drgtaneja@gmail.com</a> Mob.: 09896255069
11.	Prof. Meenakshi Srivastava	Dept. of Statistics, Institute of Social Sciences, Dr. B. R. Ambedkar University, Agra (UP) Email: <a href="mailto:msrivastava_iss@hotmail.com">msrivastava_iss@hotmail.com</a> Mob.: 09927087633
12.	Prof. G. K. Shukla	Retd. Professor (IIT Kanpur) Visiting Professor, Decision Science Group, IIM Lucknow, Lucknow (UP) -226013, Email: <a href="mailto:girja@iiml.ac.in">girja@iiml.ac.in</a> Mob.: 09511444747
13.	Dr. Rajesh Tailor	Associate Professor, School of Studies in Statistics, Vikram University, Ujjain (M.P.) -456010 Email: <a href="mailto:tailorraj@gmail.com">tailorraj@gmail.com</a> Mob.: 09630295223

SB 50.20.2      The School Board also approved the evaluation methodology for the programme (Annexure 10).

**Item no. 21: To consider and approve the relaxation of eligibility criteria for PGCGI programme as “Graduate in any discipline from a recognised university” instead of “Graduate in any discipline from a recognised university with science at 10+2 (higher secondary) level”.**

SB 50.21.1 The School Board was informed that the Post Graduate Certificate in Geoinformatics (PGCGI) programme had been launched in the July 2014 admission cycle with the eligibility condition for admission to the programme as “Graduate in any discipline from a recognised university with science at 10+2 (higher secondary) level”. However, many queries/ requests through phone and email were being received to relax the eligibility criteria so as to include more learners, irrespective of their background at 10+2 level. The School Board’s approval was being sought to revise the eligibility criteria as “Graduate in any discipline from a recognised university”. The School Board desired to know whether candidates with the proposed eligibility criteria would be able to cope with the academic content of the programme. The Board was assured by the Programme Coordinator that the courses of the programme were pitched at the basic level and there would be no difficulty for such learners to follow them.

SB 50.21.2 The School Board accorded approval to the eligibility criteria for admission to the Post Graduate Certificate in Geoinformatics (PGCGI) programme as “Graduate in any discipline from a recognised university”.

**Item no. 22: To consider and approve the minutes of the meetings of Course Design Committees for the Level 2 Geography courses in B.Sc., namely, BGG-004, BGG-005, BGGL-002 and BGGL-003 along with the finalised course structures and recommend the names of course writers for these courses.**

SB 50.22.1 The School Board was informed that the Course Design Committee meetings for Level 2 Geography courses in B.Sc., namely, BGG-005 entitled **Concepts of Remote Sensing and GIS**, BGGL-002 entitled **Techniques of Remote Sensing and Geographical Information System**, BGGL-003 entitled **Introduction to Quantitative Techniques in Geography** and BGG-004 entitled **Economic Geography** were conducted from March 24-26, 2014. Approval of the School Board was being sought for the minutes of these meetings and the detailed unitised syllabi/lab exercises. and the names of the course writers for these courses.

SB 50.22.2 The School Board approved the Minutes of the Course Design Committee meetings for Level 2 Geography courses in B.Sc., namely, BGG-005 entitled **Concepts of Remote Sensing and GIS**, BGGL-002 entitled **Techniques of Remote Sensing and Geographical Information System** BGGL-003 entitled **Introduction to Quantitative Techniques in Geography** and BGG-004 entitled **Economic Geography** held on March 24-26, 2014 and the detailed unitised structure of the courses (**Annexure**

11). The School Board also recommended the names of the course writers for these courses. These are also placed at **Annexure 11**.

**Item no. 23: To consider and approve the lists of experts for the Course Design Committees for B.Sc. Geography Level 3 Courses: BGG-006, BGG-007, BGG-008 and BGGL-004, BGGE-001, BGGE-002, BGGE-003 and BGGE-004.**

SB 50.23.1 In its 44<sup>th</sup> meeting held on 2<sup>nd</sup> March, 2012 The School Board of the School of Sciences vide SB 44.44.2 had approved the syllabi for B.Sc. electives in Geography. However, Course Design Committee meetings are held by the discipline for further elaboration of individual courses. The Course Design Committee meetings for B.Sc. Geography Level 1 and Level 2 courses had been conducted on August 27-28, 2012 and March 24-26, 2014, respectively. The approval of the School Board was being sought for the names of the Experts for Course Design Committees for eight Level 3 Geography courses of B.Sc., namely, BGG-006, BGG-007, BGG-008 and BGGL-004, BGGE-001, BGGE-002, BGGE-003 and BGGE-004 for further detailing of the syllabus.

SB 50.23.2 The lists of experts for the Course Design Committees for level 3 Courses of Geography in B.Sc. (**Annexure 12**) were approved by the School Board.

**Item no. 24: To consider and recommend the lists of additional course writers and approve the lists of translators for Geography electives in the B.Sc. programme.**

SB 50.24.1 In its 44<sup>th</sup> meeting held on 2<sup>nd</sup> March, 2012, the School Board of the School of Sciences had approved the lists of course writers and editors for the Geography electives in the B.Sc. programme. However, while preparing study materials for Level 1 and Level 2 courses, the Geography Discipline Group felt the need for additional course writers. Since the Programme has to be launched in both English and Hindi mediums, the translation of the study materials developed in English needs to be done in Hindi. Recommendations of the School Board for the lists of additional course writers and approval of translators were being sought for different Geography electives in the B.Sc. programme.

SB 50.24.2 The lists of additional course writers recommended by the School Board and the list translators approved by the School Board for different Geography electives in the B.Sc. programme are appended at **Annexure 13**.

**Item no. 25: To consider and approve the Phase Zero Forms for the courses “Design and Analysis of Algorithms” (MMTE-002) and “Pattern Recognition and Image Processing” (MMTE-003) of the M.Sc. (MACS) programme.**

SB 50.25.1 The School Board was informed that the Course Expert Committee meetings for the courses “Pattern Recognition and Image Processing” and “Design and Analysis of Algorithms” of the M. Sc. (MACS) programme were held on 29<sup>th</sup> August, 2014 and

16<sup>th</sup> July, 2014, respectively, to discuss the syllabi of these courses and divide the syllabi into units for the development of self learning material. Approval of the School Board and recommendation to Academic Council was being sought for the Minutes of these meetings and the respective phase zero forms (**Annexures 14a to d**). It was explained that the courses were on offer as wrap-around materials developed around standard text-books. However, students were finding it difficult to study the books and the wrap-around materials. Their feedback was that it was easier for them to read and comprehend SLMs in the programme.

SB 50.25.2 The School Board deliberated on the matter and approved the Minutes of the meetings of the Course Expert Committee for the courses “Pattern Recognition and Image Processing” and “Design and Analysis of Algorithms” of the M. Sc. (MACS) programme held on 29<sup>th</sup> August, 2014 and 16<sup>th</sup> July, 2014, respectively, and recommended that the phase zero forms of the two courses (**Annexures 14 c and d**) be forwarded for the Academic Council’s approval.

**Item no. 26: To consider and approve the Phase Zero forms of the Revised Chemistry Elective Courses to be offered at the First and Second levels as part of B.Sc. Chemistry (Major) Programme, i.e., Inorganic Chemistry I, Organic Chemistry I, Physical Chemistry I, Chemistry Lab I, Chemistry Lab II, Inorganic Chemistry II, Organic Chemistry II, Physical Chemistry II, Chemistry Lab III, Chemistry Lab IV and the Revised Programme Structure.**

SB 50.26.1 The School Board was informed that the revised structure and the list of proposed Chemistry Elective courses for B.Sc. Chemistry (Major) Programme had been approved by the School Board of the School of Sciences in its 31<sup>st</sup> meeting held on 30<sup>th</sup> Nov., 2006 as per the recommendations of the Programme Expert Committee meetings held on 8<sup>th</sup> Feb., 2005 and 25<sup>th</sup> Nov., 2005. The revised programme structure of the B.Sc. Chemistry (Major) was approved in the 17<sup>th</sup> meeting of Academic Council’s Standing Committee held on 16<sup>th</sup> Dec. 2005. Subsequently, the Course Expert Committee meetings for various courses were held during 2006-2007 to finalise the syllabi wherein the writing work was also assigned for the first level theory electives. The minutes of Programme Expert Committee Meeting and Course Expert Committee Meetings are placed at **Annexure 15**. The development of the revised courses could not be taken up immediately due to the involvement of the faculty members in the development of PGDAC Programme which was launched in July 2009. From July 2009, the faculty was engaged in M.Sc. Chemistry face to face Programme which continued until July 2013. In view of the time gap in developing the revised courses, approval of the School Board was being sought for the phase zero forms for the first and second level courses along with the revised programme structure of B.Sc. Chemistry (Major).



SB 50.26.2     The School Board deliberated on the matter and approved the phase zero forms of the courses Inorganic Chemistry I (**Annexure 16a**), Organic Chemistry I (**Annexure 16b**), Physical Chemistry I (**Annexure 16c**), Chemistry Lab I (**Annexure 16d**), Chemistry Lab II (**Annexure 16e**), Inorganic Chemistry II (**Annexure 16f**), Organic Chemistry II (**Annexure 16g**), Physical Chemistry II (**Annexure 16h**), Chemistry Lab III (**Annexure 16i**), Chemistry Lab IV (**Annexure 16j**) as well as the revised Programme Structure of B.Sc. Chemistry (Major) (**Annexure 16k**).

**Item no. 27: To consider and approve the Minutes of the Exploratory Committee Meeting for Planning and Development of the Bachelor's Degree Programme in Geology held on 1<sup>st</sup> September, 2014 and the Phase 1 form in the revised format for the B.Sc. (Major) Geology Programme through Distance Mode.**

SB 50.27.1     The School Board was informed that the syllabi of elective courses for the three levels of B.Sc. (Major) Geology and Phase 0 forms for three Level 1 electives namely, **Planet Earth** (BGY 001), **Strata and Prehistoric Life** (BGY 002) and **Geology Lab I** (BGYL 001) were approved in the 44<sup>th</sup> meeting of the School Board of the School of Sciences held on 2<sup>nd</sup> and 30<sup>th</sup> March, 2012 vide SB 44.43.2 and subsequently in the 34<sup>th</sup> meeting of the Academic Council Standing Committee held on 15<sup>th</sup> June, 2012 vide ACSC 34.23.1. Further, the proposal for the approval for Phase 0 forms for three electives of Level 2 namely, Earth Resources (BGY 003), Petrology (BGY 004), and Geology Lab II (BGYL 002) was placed in the 37<sup>th</sup> meeting of the Academic Council Standing Committee held on 28<sup>th</sup> Oct. and 7<sup>th</sup> Nov., 2013 (item no. ACSC 37.3-5.1) after the approval of the School Board of School of Sciences in its 46<sup>th</sup> meeting held on 15<sup>th</sup> May 2013 vide SB 46.18.1. The ACSC recommended that the matter be referred back to the School Board with the suggestion that the Discipline of Geology should bring a comprehensive proposal for the development of B.Sc. programme in Geology.

A meeting of the Exploratory Expert Committee for Planning and Development of the Bachelor's Degree Programme in Geology was held on 1<sup>st</sup> September, 2014 to design the broad structure of the Bachelor's Degree Programme in Geology and deliberate on the number of credits and combination of subjects for offering B.Sc. (Hons./ Major) in Geology and B.Sc. with Geology as one of the subjects. The Committee was of the unanimous view that IGNOU should offer the B.Sc. (Hons./ Major) in Geology and B.Sc. with Geology as one of the subjects. The details of eligibility criteria for students and the combination of other Disciplines and the broad content areas of Geology and their credits for B.Sc. (Gen.) and B.Sc. (Hons./Major) as recommended by the Committee are given in the Minutes of the Exploratory Committee Meeting for Planning and Development of Bachelor's programme in Geology.

The School Board was also informed that the list of degrees issued by the UGC recently, mentioned the nomenclature B. Sc. (Hons.) and B. Sc. and the nomenclature B. Sc. (Major) did not exist any more in the list. Accordingly, the approval of the School Board was being sought for the Minutes of the meeting of the Exploratory Committee for Planning and Development of Bachelor's Degree Programme in Geology (**Annexure 17a**) and the Phase 1 form for B.Sc. (Hons.) Geology and B.Sc. with Geology as one of the subjects (**Annexure 17b**).

- SB 50.27.2 The School Board deliberated on the matter and approved the Minutes and the Phase 1 form with the advice that the entry in Point 7a of Annexure 17b be changed to 'Yes' instead of 'No' as IGNOU designs and develops its programmes in active collaboration with Experts from other Universities and Institutions. The Board also recommended that separate Phase 1 forms be submitted for the two programmes, namely, B. Sc. (Hons.) in Geology and B. Sc. with Geology as one of the subjects. The modified Phase 1 forms for B. Sc. (Hons.) in Geology and B. Sc. with Geology as one of the subjects as approved by the School Board are placed at **Annexures 17c** and **d**, respectively.

**Item no. 28: To consider and approve the Phase 1 form in the revised format for the M.Sc. (Chemistry) Programme through Distance Mode.**

- SB 50.28.1 The School Board was informed that the concept note and the Phase 1 form (older version) for the M.Sc. (Chemistry) Programme through the Distance Mode were approved by the School Board of the School of Sciences in its 41<sup>st</sup> meeting held on 29<sup>th</sup> November, 2010. A Programme Expert Committee meeting for the M.Sc. (Chemistry) Programme through Distance Mode was held on 20-21, November 2012. The Programme Structure and the Syllabi for the M.Sc. (Chemistry) Programme through Distance Mode finalized by the Programme Expert Committee were placed in the 46<sup>th</sup> meeting of the School Board held on 15<sup>th</sup> May, 2013. The Board advised that "the syllabi for the laboratory courses should also be detailed and the entire syllabus should be arranged in the same format". Accordingly, another meeting of members of the Programme Expert Committee was held on 29<sup>th</sup> November, 2013 to design the syllabi of the remaining four of the eight laboratory courses.

In compliance with the decision of the Academic Council that the Phase forms of all programmes that were yet to be launched, be submitted in the revised format, approval of the School Board was being sought for the Phase 1 form (in the revised format) for the M.Sc. (Chemistry) programme being offered in the distance mode.

- SB 50.28.2 The School Board deliberated on the matter and approved the Phase 1 form (in the revised format) for the M.Sc. (Chemistry) programme being offered in the distance mode with the stipulation that in the tentative list of experts submitted with the

form, the names of those experts be removed who were not in India. It was also advised by the School Board that about 10 to 12 Experts from that list be invited at any given time in future meetings.

The Board also advised that the eligibility criteria for the programme be modified as follows:

- The candidate should have passed the B.Sc (Hons.)/ B.Sc (General) degree with Chemistry as one of three subjects having equal weightage.
- *General Candidates:* At least 50% marks in aggregate as well as in Chemistry courses
- *Reserved Category Candidates:* At least 45% marks in aggregate as well as in Chemistry courses

The Board further advised that the proposed launch date be changed to July, 2019.

SB50.28.3 The modified Phase 1 form (in the revised format) for the M.Sc. (Chemistry) programme being offered in the distance mode as approved by the School Board along with the modified list of Experts is placed at **Annexure 18**.

**Item no. 29: To consider and approve the minutes of the meeting of Doctoral Committee for Life Sciences held on 18<sup>th</sup> and 19<sup>th</sup> June, 2014.**

SB 50.29.1 The School Board was informed that a meeting of the Doctoral Committee for Life Sciences was held on 18<sup>th</sup> and 19<sup>th</sup> June, 2014 to assess the Pre Ph.D Seminar presentations of three Ph.D. (Life Sciences) students, namely, Mr. Sujeet Pratap Singh, Mr Anjan Kumar Sharma and Ms. Anamika Tripathi for submission of their theses, review the second mandatory work in progress seminar of two Ph.D. scholars registered in Ph.D. (Life Sciences) Programme, namely, Mr. Ravi Kant and Ms. Kavitha S., review the first mandatory work in progress seminar of three Ph.D. scholars, namely, Shri Pushpa Kant Rao, Shri Vipin Tomar and Shri Prem Parkash Chauhan, assess the resubmission of the synopsis of Binish Jawed for admission under category A and to assess the progress reports of 17 Ph.D. scholars registered in the Ph.D. (Life Sciences) Programme. Approval of the School Board was being sought for the minutes of the meeting.

SB 50.29.2 The School Board approved the minutes of the meeting of the Doctoral Committee for Life Sciences held on 18<sup>th</sup> and 19<sup>th</sup> June, 2014 (**Annexure 19**) with the advice that henceforth separate Doctoral Committees be constituted for reviewing the progress and assessing the mandatory seminars of Ph. D. Scholars belonging to different areas of specialisations. The Board further advised that, as far as possible, the same group of Experts specialising in an area may be invited to the Doctoral

Committee for a Ph. D. scholar or a set of Ph. D. scholars working in that area of specialisation for consistency and quality.

**Item no. 30: To consider and approve the minutes of the meetings of Doctoral Committee for Chemistry held on 18<sup>th</sup> July, 2014 and 27<sup>th</sup> August, 2014.**

SB 50.30.1 The School Board was informed that two meetings of the Doctoral Committee for Chemistry were held on 18<sup>th</sup> July, 2014 and 27<sup>th</sup> August, 2014, respectively.

1. In the meeting held on 18<sup>th</sup> July, 2014

- 7 students gave the presentation of their research work done and their presentations were found to be satisfactory.
- The Progress Reports of 24 Ph.D. candidates were presented and approved.
- Request of the student Shri Chandraprakash Narani (Enrolment No. 112247330) seeking exemption on submission of Progress report for the period Jan-June, 2014 was considered and approved.

2. In the meeting held on 27<sup>th</sup> August, 2014

- 2 students gave their Pre-submission Seminars which were found to be satisfactory.
- The Progress Report of one Ph.D. candidate was presented which was approved.

SB 50.30.2 The School Board approved the minutes of the meetings of the Doctoral Committee for Chemistry held on 18<sup>th</sup> July, 2014 and 27<sup>th</sup> August, 2014 (**Annexure 20**) with the same advice for constituting Doctoral Committees as in SB 50.29.2.

**Item no. 31: To consider and approve the minutes of the meeting of the Doctoral Committee for Biochemistry held on 22<sup>nd</sup> July, 2014.**

SB 50.31.1 The School Board was informed that a meeting of the Doctoral Committee for Biochemistry was held on July 22, 2014 to review the modified research proposal submitted by Ms. Trupti Bajpai and to assess the first mandatory work in progress seminar by Ms. Jyoti Rastogi. The Committee also assessed the six monthly progress reports of 3 Ph.D. scholars registered in the Ph.D. (Biochemistry) Programme. The following recommendations were made by the Doctoral Committee:

1. The modified research proposal presented by Ms. Trupti Bajpai was approved and it was recommended that she be allowed to pursue the Ph.D. programme in Biochemistry.

2. The Doctoral Committee found the progress of Ms. Jyoti Rastogi to be satisfactory. However, the experts suggested that there should be more emphasis on biochemical aspects in her research work.
3. The Doctoral Committee found the progress of Ms P. Swati Chitra and Ms. Shikha Goel to be satisfactory.

SB 50.31.2     The School Board approved the minutes of the meeting of the Doctoral Committee for Biochemistry held on July 22, 2014 (**Annexure 21**) with the same advice for constituting Doctoral Committees as in SB 50.29.2.

**Item no. 32: To consider and approve the minutes of the meeting of Doctoral Committee for Geography held on August 13, 2014 and the proposed syllabus and scheme of evaluation for the Entrance examination in Ph.D. (Geography).**

SB 50.32.1     The School Board was informed that the Ph.D. (Geography) Programme had been launched from January, 2013 for category 'A' students exempted from entrance test. However, many candidates who could not be exempted from the entrance test sought admission into the Ph.D. (Geography) Programme. Therefore, a meeting of the Doctoral Committee for Geography was held on August 13, 2014 to finalise the syllabus and the evaluation methodology of the entrance test for the Ph.D. (Geography) Programme.

SB 50.32.2     The School Board deliberated on the minutes of the meeting and approved the syllabus and the evaluation methodology for the entrance test (**Annexure 22**).

**Item no. 33: To consider and approve the minutes of the meeting of the Doctoral Committee for Mathematics held on 20<sup>th</sup> August, 2014 and the progress report of Ms. Hemlata Maurya, enrolled in the Ph.D. (Mathematics Education) Programme for the period of 01/01/2014 to 30/06/2014.**

SB 50.33.1     The School Board was informed that a meeting of the Doctoral Committee for Mathematics was held on 20<sup>th</sup> August, 2014 to consider the progress report of Ms. Hemlata Maurya, enrolled in the Ph.D. (Mathematics Education) Programme for the period of 01/01/2014 to 30/06/2014. The progress of Ms. Hemlata Maurya was found to be good.

SB 50.33.2     The School Board approved the Minutes of the meeting of the Doctoral Committee for Mathematics held on 20<sup>th</sup> August, 2014 (**Annexure 23**) and the progress report of Ms. Hemlata Maurya with the stipulation that henceforth all internal Faculty members of the Doctoral Committee for Mathematics should attend such meetings.

**Item no. 34: To consider and approve the Minutes of the 9<sup>th</sup> and 10<sup>th</sup> meetings of the Doctoral Committee for Geology held on 25<sup>th</sup> and 26<sup>th</sup> August, 2014 to review the six monthly progress reports of Ph.D. scholars in Geology.**

SB 50.34.1 The School Board was informed that the 9<sup>th</sup> meeting of the Doctoral Committee for Geology was held on 25<sup>th</sup> August, 2014 to review the six-monthly progress report of Mr. Sarvesh Misra (Enrolment no.144500342) for the period Jan. 2014-June 2014 on the topic **“Reconstruction of Palaeogeography and Palaeodepositional Environment of Siwalik Sediments around Ramnagar-Kaladungi area, Nainital, Uttarakhand”**. The Doctoral committee advised the candidate that he should carry out an extensive literature survey and present a comprehensive report on list of papers consulted by him in his next six monthly progress report.

The 10<sup>th</sup> meeting of the Doctoral Committee for Geology was held on 26<sup>th</sup> August, 2014 to

- Review the six-monthly progress report of Mr. Ankit Shah (Enrolment no. 131636648) for the period Jan., 2014 – June, 2014 on the topic **“Remote Sensing Based Depth Derivation of Shallow Inland Water Environment”**. The Doctoral Committee recommended that the progress of the candidate during the period was satisfactory. The Committee advised him to generate sample depth map for the study area based on field data in the next six months.
- Review the six-monthly progress report of Mr. Amit Kumar (Enrolment no.127723726) for the period Jan., 2014 – June, 2014 on the topic **“Geoecological study in parts of Kangra region, Himachal Himalaya using Geoinformatics”**. The Doctoral Committee recommended that the progress of the candidate during the period was satisfactory and advised him to work out the methodology for carrying out landscape ecological studies.

SB 50.34.2 The School Board approved the Minutes of the 9<sup>th</sup> and 10<sup>th</sup> meetings of the Doctoral Committee for Geology held on 25<sup>th</sup> and 26<sup>th</sup> August, 2014 (**Annexure 24**) and the progress reports of Mr. Ankit Shah (Enrolment no. 131636648) for the period Jan., 2014 – June, 2014 and Mr. Amit Kumar (Enrolment no.127723726) for the period Jan., 2014 – June, 2014.

**Item no. 35: To consider and approve the CV of Dr. M. Abdul Kareem, Assistant Professor in Biochemistry as a Research Supervisor.**

SB 50.35.1 The School Board was informed that Dr. M. Abdul Kareem, Assistant Professor in Biochemistry would be completing five years of post-Doctoral experience by 1<sup>st</sup> Oct, 2014 and he had five years of teaching experience. The complete CV of Dr. M. Abdul Kareem, Assistant Professor in Biochemistry (**Annexure 25**) was placed

before the School Board of School of Sciences for approval as supervisor in the M. Phil/Ph.D. (Biochemistry) Programme.

SB 50.35.2     The CV of Dr. M. Abdul Kareem, Assistant Professor in Biochemistry as supervisor in the M. Phil/Ph.D. (Biochemistry) Programme was approved by the School Board.

**Item no. 36:     To consider and approve the revised evaluation methodology for pre PhD course work of Biochemistry.**

SB 50.36.1     The School Board was informed that the minutes of the Expert Committee meeting held on 9th and 10th January 2014 were placed in the 49th meeting of the School Board held on 28th April, 2014 for approval. The Expert Committee had made the following recommendations about the structure of the pre-PhD courses in Biochemistry, as well as their mode of transaction and evaluation methodology for these courses:

- the pre-PhD course work for a maximum of 32 credits worth courses be offered in 2 semesters of which four core courses (of a total of sixteen credits) be offered in the first semester and **up to** 16 credits worth of optional courses offered in the second semester. The course work for each candidate would be prescribed by the Doctoral Committee for Biochemistry in accordance with the University Research Ordinance.
- The transaction of the curriculum should be through study materials including recommended reading lists of books/chapters from books, research papers, etc. (given with the syllabi) along with extended contact programme and may also involve use of ICT for interaction. The extended contact programme of up to 21 working days for four courses in each semester shall be compulsory for all PhD students undergoing the prescribed course work. If required, additional contact programme for one week may be arranged in each semester. IGNOU could also make institutional arrangements with other reputed Universities in Delhi (JNU, DU, JMI, Jamia Hamdard, etc.) for transacting the course work.
- The assessment of each course would have two components: continuous assessment (in the form of seminars, term papers, review of research papers/books, articles, lab practical and assignments) and term end examination with weightages of 50% each. For successful completion of the courses, a student shall be required to obtain at least 50% of the maximum marks separately in each component – continuous assessment and term-end examination – of every course. The continuous assessment for each course will comprise the following components with the respective weightages:
  - a) Term paper based on review of research papers/books – 25%

- b) Up to two Assignments and/or practical work in the Lab and/or tutorials – 50%
- c) Up to two Seminars – 25%

While deliberating on the recommendations of the Expert Committee, the School Board was of the view that the methodology for transaction of the curriculum of pre-PhD courses must be developed for the University in a holistic perspective. Further, in respect of component (b) of the continuous assessment for the courses, the School Board desired to know the list of experiments and practical activities that would be performed for the proposed courses since it had not been spelt out in the respective syllabi and subsequent to discussion, the matter was deferred. It was decided that the advice of the same Expert Committee be sought on the matter. The School Board also sought specific recommendations on whether the courses on Biochemical and Molecular Biological Techniques and Biophysical Techniques would be theoretical courses or involve any hands-on training component.

SB 50.36.2 The matter was referred back to the Expert Committee and the following recommendations of the Expert Committee were placed for the consideration and approval of the School Board:

1. The practical component suggested in the evaluation methodology proposed earlier may be done away with. The research scholars would acquire the hands-on training in the Lab techniques while working in their respective Research Labs.
2. The courses on Biochemical and Molecular Biological Techniques and Biophysical Techniques would be theoretical courses with emphasis on underlying principles and methods.
3. The Continuous Assessment for each course would comprise the following components with the respective weightages:
  - a) Term paper based on review of research papers/books - 25%
  - b) At least two Assignments - 25%
  - c) Two Seminars - 25%
  - d) Closed Book Test - 25 %

SB 50.36.3 The School Board approved the recommendations of the Expert Committee at SB 50.36.2 along with the design of the pre-PhD courses in Biochemistry placed at Annexure 11 of the Minutes of the 49<sup>th</sup> meeting of the School Board, their mode of transaction and the revised evaluation methodology. The structure and syllabi of the pre-PhD courses for PhD (Biochemistry) programme, their transaction methods and the revised evaluation methodology approved by the School Board are placed at **Annexure 26**.



**Item no. 37: To consider and approve the Minutes of the meeting of the Doctoral Committee for Geography held on August 8, 2014 and the Progress Reports of 10 (Ten) Ph.D. scholars in Geography.**

SB 50.37.1 The School Board was informed that a meeting of the Doctoral Committee for Geography was held on August 8, 2014 to review the progress of 10 candidates registered in the Ph.D. (Geography) Programme. The Minutes of the meeting of the Doctoral Committee for Geography held on August 8, 2014 (**Annexure 27**) were placed before the School Board. Seven candidates had presented their progress reports in the meeting and their progress had been found to be satisfactory. The Committee recommended minor modification in the research topic of Mr. Ranajit Jana. The Committee also recommended the cancellation of registration of Mr. Md. Monazir Hussain in the Ph.D. (Geography) Programme and suggested that the same procedure should be followed for Ms. Pushpa Latha Vadlapati as both of them have neither attended two consecutive progress review meetings for Ph.D. (Geography) Programme nor responded to the repeated communications sent to them.

SB 50.37.2 The School Board approved the progress reports presented by seven candidates registered in the Ph.D. (Geography) Programme. The Board also approved the minor modification in the research topic of Mr. Ranajit Jana. However, while deliberating on the recommendation of the Doctoral Committee regarding the cancellation of registration of Mr. Md. Monazir Hussain and Ms. Pushpa Latha Vadlapati in the Ph.D. (Geography) Programme, the School Board advised that their registration be cancelled in accordance with the University regulations after issuing due written warnings to them.

**Item no. 38: To consider and approve the syllabus for Pre-Ph.D. Coursework, transaction methods and Evaluation methodology for Ph.D. (Geology) programme.**

SB 50.38.1 The School Board was informed that the Pre-Ph.D. Course work for the Ph.D. Programme in Geology was designed in the First Doctoral Committee meeting of Geology held on 24<sup>th</sup> Oct. 2011. Subsequently the minutes of the First Doctoral Committee meeting of Geology and the syllabi of Pre-Ph.D. Course work were placed for consideration and approval in the 44<sup>th</sup> meeting of the School Board of the School of Sciences held on 2<sup>nd</sup> and 30<sup>th</sup> March 2012. The School Board recommended that the Phase III form should be filled for the approval of the syllabus for Pre-Ph.D. coursework (item no. SB 44.34.1). Since the Phase III form was not required for the approval of the syllabi of Pre-Ph.D. Course work, the matter was being placed again for approval of the School Board.

SB 50.38.2 The School Board deliberated on the matter and approved the structure and syllabi for the pre-Ph.D. courses, their transaction methods and evaluation methodology (**Annexure 28**) for the Ph.D. programme in Geology.

**Item no. 39: To consider and approve the first six-monthly Progress Report of Mr. Satish Konda, Ph.D. scholar in Statistics.**

SB 50.39.1 The School Board was informed that Mr. Satish Konda had been registered in the Ph. D. (Statistics) programme under the supervision of Dr. Manish Trivedi, SOS, IGNOU and Prof. Y. S. Ramakrishnaiah (Retd.), Osmania University on the topic **“Generalisation of Smoothed Nonparametric Estimation of Finite Mixture for Non-iid Sequences with applications”**. He had submitted his first six monthly progress report for the period from January, 2014 to June, 2014 (**Annexure 29**). Both supervisors had found his progress to be satisfactory for this period.

SB50.39.2 The School Board approved the first six monthly progress report of Shri Satish Konda.

**Item no. 40 (i): To consider and approve the names of Experts for the review of the first B. Sc. Elective in Biochemistry entitled Biomolecules and Biochemical Techniques (BBCE001).**

SB 50.40.1(i) The School Board was informed that the names of the following Experts had been proposed by the Biochemistry Faculty to review the first B.Sc. elective in Biochemistry entitled Biomolecules and Biochemical Techniques (BBCE001) before it was printed:

1. Prof. Sunita Malhotra  
School of Sciences, IGNOU  
(O): 011-29532167  
Email: [smalhotra@ignou.ac.in](mailto:smalhotra@ignou.ac.in)
2. Dr. Suneeta Joshi  
Associate Professor, Biochemistry Department,  
Daulat Ram College, Delhi University  
Email: [sunjoshi5@yahoo.co.in](mailto:sunjoshi5@yahoo.co.in)  
(O): 011-27667863, (M): 09953150114
3. Dr. Swadesh Taneja  
Retired Associate Professor, School of Sciences, IGNOU, New Delhi  
[Email:swadeshjhamb@hotmail.com](mailto:swadeshjhamb@hotmail.com)  
Phone: 09350333274

SB 50.40.2(i) The Board approved the names of the above Experts for reviewing the first B.Sc. elective in Biochemistry entitled Biomolecules and Biochemical Techniques (BBCE001).

**Item no. 40 (ii): To consider and approve the following two Application-oriented courses (AOCs) for the Bachelor's Degree Programme:**

- a) Fresh Water Aquaculture Practices (8 credits: 6credits theory + 2 credits Laboratory)**
- b) Coastal Water Aquaculture Practices (8 credits: 6credits theory + 2 credits Laboratory)**

SB 50.40.1(ii) The School Board was informed that the AOC entitled **Aquaculture Practices** (AAQ-001) had been approved by the Academic Council in its 62<sup>nd</sup> meeting held on April 11, 2014. The Life Sciences Discipline had proposed to offer two additional AOCs, namely, Fresh Water Aquaculture (8 credits) and Coastal Water Aquaculture (8 credits) in the basket of skill based courses in the Bachelor's Degree Programme. This would equip our undergraduate learners with the vocational skills in the area of Aqua farming and Aqua ranching. These courses would provide technical know-how and develop entrepreneurial skills in fisher folk and also create awareness and promote green aquaculture. The existing AOC in **Aquaculture Practices** (AAQ-001) would be offered together with the course **Fresh Water Aquaculture** worth 8 credits to form a 16 credits package named **Fresh Water Aquaculture Practices**. Likewise, the course **Coastal Water Aquaculture** worth 8 credits would be offered together with Aquaculture Practices (AAQ-001) worth 8 credits as a 16 credits package named **Coastal Water Aquaculture Practices**. Approval of the School Board was being sought for the proposal and the syllabi of the courses **Fresh Water Aquaculture** and **Coastal Water Aquaculture** (Annexure 30).

SB 50.40.2(ii) The Board considered and approved the proposal of offering two additional AOCs, namely, Fresh Water Aquaculture (8 credits) and Coastal Water Aquaculture (8 credits) and their syllabi as well as the proposal of offering 16 credits packages named **Fresh Water Aquaculture Practices** and **Coastal Water Aquaculture Practices** in the basket of skill based courses in the Bachelor's Degree Programme.

**Item no. 40 (iii): To consider and recommend the names of paper setters, evaluators and members of the Moderation Board for the course An Overview of Math. Education (RMT-012) of the Ph.D. programme in Mathematics Education (PHDMTED).**

SB 50.40.1(iii) The lists of Paper Setters, Evaluators and members of the Moderation Board for the course entitled An Overview of Math. Education (RMT-012) of the Ph.D. programme in Mathematics Education (PHDMTED) were placed before the School Board for approval.

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SB 50.40.2(iii) The School Board considered and recommended the following lists of Paper Setters, Evaluators and members of the Moderation Board for the course entitled An Overview of Math. Education (RMT-012) of the Ph.D. programme in Mathematics Education (PHDMTED).

## List of Paper Setters (Ph.D. in Mathematics Education)

**Course Title: An Overview of Math. Education**

**Course Code: RMT-012**

Sl. No.	Name	Contact number (s)/E-mail
1.	Prof. Amitabh Mukherjee Dept. of Physics, Delhi University, Delhi-110007	Ph. 9810187677; Email: <a href="mailto:amimukh@gmail.com">amimukh@gmail.com</a>
2.	Dr. Rakhi Bannerjee Azim Premji University, PES Institute of Technology Campus, Pixel Park, B Block, Electronics City, Bengaluru -560100	080 66 145145
3.	Prof. K. Subramaniam Homi Bhabha Centre for Science Education, V.N. Purv Marg, Mankhurd, Mumbai - 400088	09869020791
4.	Sh. Rohit Dhankar Azim Premji University, PES Institute of Technology Campus, Pixel Park, B Block, Electronics City, Bengaluru - 560100	080 66 145145
5.	Prof. Parvin Sinclair Director, NCERT, Shri Aurobindo Marg, New Delhi	9871178061
6.	Prof. Sujatha Varma School of Sciences, IGNOU, New Delhi-110068	011- 29572830 (O) 08800101390 (M)

## List of Evaluators (Ph.D. in Mathematics Education)

**Course Title: An Overview of Math. Education**

**Course Code: RMT-012**

Sl. No.	Name	Contact number (s)
1.	Prof. Ramanujan Institute of Mathematical Sciences, 4 <sup>th</sup> Cross Street, Tharamani, Chennai	044 - 2254 3100
2.	Dr. Aloka Kanhere Homi Bhabha Centre for Science Education, V.N. Purv Marg, Mankhurd, Mumbai - 400088	022 - 25562132
3.	Dr Rakhi Bannerjee Azim Premji University, PES Institute of Technology Campus, Pixel Park, B Block, Electronics City, Bengaluru - 560100 Email: <a href="mailto:rakhib@hbcse.tifr.res.in">rakhib@hbcse.tifr.res.in</a>	080 66 145145
4.	Prof. K. Dorasami Regional Institute of Education, Mysore	0821-2514095
5.	Prof. Amitabh Mukherjee Dept. of Physics, Delhi University, Delhi-110007 Email: <a href="mailto:amimukh@gmail.com">amimukh@gmail.com</a>	9810187677

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6.	Prof. Parvin Sinclair Director, NCERT, Shri Aurobindo Marg, New Delhi	9871178061
7.	Prof. Sujatha Varma School of Sciences, IGNOU, New Delhi-110068	011- 29572830 (O) 08800101390 (M)

## MEMBERS OF THE MODERATION BOARD (Ph.D. in Mathematics Education)

**Course Title: An Overview of Math. Education**

**Course Code: RMT-012**

S.No. (1)	Director of the School (2)	Professor/Senior most faculty member of the discipline (3)	External Experts in the discipline/specialization (with complete address and telephone numbers, if any. <b>External</b> (4)	Internal Faculty member <b>Internal</b> (5)	Remarks (6)
1.	Prof. Vijayshri	Prof. P. Mital	1. Prof. Amitabh Mukherjee Dept. of Physics, Delhi University, Delhi-110007 Ph. 9810187677 Email: <a href="mailto:amimukh@gmail.com">amimukh@gmail.com</a>  2. Prof. Parvin Sinclair Director, NCERT, Shri Aurobindo Marg, New Delhi Ph. 011-26962333; M: 9871178061	Prof. Sujatha Varma	

**Item no. 40 (iv): To consider and approve the Editor and the course experts for the Course Experts Committee for the design and development of the course MMTE-005 in the M.Sc. (MACS) programme.**

SB 50.40.1(iv) The School Board was informed that the course material of the course entitled **Coding Theory** (MMTE-005) of the **M.Sc. (MACS)** programme was originally designed as wrap-around material. It was being proposed that the course material be developed in the Self Instructional form. The approval of the School Board was being sought for the names of the Editor and experts for the Course Experts Committee for the design and development of the course.

SB 50.40.2(iv) The School Board approved the following names of the Editor and experts for the Course Experts Committee for the design and development of the course **Coding Theory** (MMTE-005) of the **M.Sc. (MACS)** programme:

### **Editor**

Dr. Andrew Thangaraj  
 Dept. of Electrical Engineering, IIT Madras, Chennai 600036  
 Phone-044-22574424

**Experts for the Course Expert Committee**

S.	Name	Address	Contact number (s)
1.	Prof. Parvin Sinclair	Director, NCERT, Sri Aurobindo Marg, New Delhi-110016	011-26962333 9871178061
2.	Prof. Madhu Raka	Centre for Advanced Study in Mathematics, Dept. of Mathematics Panjab University, Chandigarh	09872989234(M)
3.	Prof. B. K. Das	Department of Mathematics Delhi University, Delhi	9811191046 (M)
4.	Dr. Meena Kumari	Scientist G (Retd.) SAG Group, Metcalfe House DRDO, Delhi-110054	09818090918(M)
5.	Dr. Sartaj Ul Hasan	SAG Group, Metcalfe House DRDO, Delhi-110054	9990627296(M)
6.	Dr. Surabhi Madan	Associate Professor Shivaji college, Ring Road, Raja Garden New Delhi-110027	(+91) 9711140225

**Item no. 40 (v): To consider and approve the revision of re-submission fee for the report of the project component AMT-01(P) of the course entitled Teaching of Primary School Mathematics in BDP/CTPM from Rs. 700/- to Rs. 200/-.**

SB 50.40.1(v) The School Board was informed that the course entitled **Teaching of Primary School Mathematics** (AMT-01) is offered in the BDP as an AOC, and in the programme CTPM (Certificate programme in the Teaching of Primary School Mathematics). It comprises a 6-credit theory component and a project component worth 2 credits. Any student successfully clears this course only if she successfully clears the assignment, term end examination and successfully completes the project component. For various reasons, many students across the country are not able to successfully complete the project component in the first try, requiring them to resubmit the project report. For being eligible to do so, towards successfully completing the **2-credit project component**, the students are being asked to pay the re-registration fee for the whole course, i.e., Rs. 700/-, as if they were registering afresh for the **whole** course, which is not so.

Thus, it is submitted for consideration that the project component be treated on a distinct footing as a special case, and the fee for re-submission for the project report be calculated as if the student were registering only for the project component. Accordingly, the fee to be charged for this may be

$$\frac{2}{8} \times 700, \text{ i.e., Rs. 175 + handling charges.}$$

Thus, the proposal that the fee may be revised downwards from Rs. 700/- to Rs. 200/- for the benefit of such learners was placed before the School Board for consideration and approval.

- SB 50.40.2(v)** The School Board considered the circumstances explained by the Programme Coordinator of CTPM and approved the proposal for revising the re-submission fee for the report of the project component AMT-01(P) from Rs. 700/- to Rs. 200/- for the benefit of students by treating it on a distinct footing as a special case.

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

  
Vijayshri  
(Director)

**List of Annexures**

<b>Annexure 1:</b>	Copy of confirmed Minutes of 49 <sup>th</sup> meeting of the School Board (without Appendices)
<b>Annexure 2:</b>	Action Taken Report
<b>Annexure 3:</b>	Report of the Committee set up by the School Board of the School of Sciences to devise a systemic mechanism for providing improved services and learning experiences in the laboratory courses offered by the School of Sciences
<b>Annexure 4:</b>	Minutes of the meeting of the Committee constituted by the School Board to examine the issue of offering MPhil programme from the School of Sciences held on 10.07.2014
<b>Annexure 5:</b>	Extract of the Minutes of the 62 <sup>nd</sup> Academic Council meeting held on 11 <sup>th</sup> April, 2014
<b>Annexure 6a to e:</b>	Details of Ms. Sujata Sinha (Enrol. No. 112247180), Ms. Kavitha. S. (Enrol. No. 100165542), Mrs. Emon Chatterjee (Enrol. No. 122878080), Mr. Ravi Kant (Enrol. No. 122877744) and Mr. Sujeet Pratap Singh (Enrol. No. 12247126), Ph.D. scholars in Life Sciences.
<b>Annexure 7a to c:</b>	Details of Mr. Imtiyaz Hussain Lone (Enrolment No. 118701694), Mr. Vinayak Adimule (Enrolment No. 127722788) and Mr. Ramil Kumar Bhardwaj (Enrolment No. 1122473348), Ph.D. scholars in Chemistry.
<b>Annexure 8a to c:</b>	Lists of Paper Setters, Evaluators and Members of the Moderation Board for the courses in the PGCGI programme
<b>Annexure 9:</b>	List of Evaluators for AMT-01 in BDP/CTPM
<b>Annexure 10:</b>	Evaluation methodology for the PG Diploma in Applied Statistics (PGDAST) programme
<b>Annexure 11:</b>	Minutes of the meetings of B.Sc. Geography Level 2 Course Design Committees for the courses BGG-004, BGG-005, BGGL-002 and BGGL-003 along with finalised course structures, syllabi and lists of editors and course writers.
<b>Annexure 12:</b>	Lists of experts for the Course Design Committees for B.Sc. Geography Level 3 Courses: BGG-006, BGG-007, BGG-008 and BGGL-004, BGGE-001, BGGE-002, BGGE-003 and BGGE-004
<b>Annexure 13:</b>	Lists of additional course writers and translators for Geography electives in the B.Sc. programme
<b>Annexure 14a to d:</b>	Minutes of the Course Expert Committee meetings for MMTE-002, MMTE-003 and their Phase zero Forms
<b>Annexure 15:</b>	Minutes of Programme Experts Committee Meeting and Course Experts Committee Meetings
<b>Annexure 16a to k:</b>	Phase zero Forms for the courses Inorganic Chemistry I, Organic Chemistry I, Physical Chemistry I, Chemistry Lab I, Chemistry Lab II, Inorganic Chemistry II, Organic Chemistry II, Physical Chemistry II, Chemistry Lab III, Chemistry Lab IV and the Revised Programme Structure
<b>Annexure 17a to d:</b>	Minutes of the Exploratory Committee Meeting in Geology for Planning and Development of Bachelor's programme in Geology, the Phase 1 Form



- submitted to the School Board and the approved Phase 1 forms for B.Sc. (Hons.) Geology and B.Sc. with Geology as one of the subjects
- Annexure 18:** Phase 1 form in the revised format for the M.Sc. (Chemistry) Programme being offered through the distance mode
- Annexure 19:** Minutes of the meeting of Doctoral Committee for Life Sciences held on 18<sup>th</sup> and 19<sup>th</sup> June, 2014
- Annexure 20:** Minutes of the meetings of Doctoral Committee for Chemistry held on 18<sup>th</sup> July, 2014 and 27<sup>th</sup> August, 2014
- Annexure 21:** Minutes of the meetings of Doctoral Committee for Biochemistry held on 22<sup>nd</sup> July, 2014
- Annexure 22:** Minutes of the meetings of Doctoral Committee for Geography held on 13<sup>th</sup> August, 2014
- Annexure 23:** Minutes of the meeting of the Doctoral Committee for Mathematics held on 20<sup>th</sup> August, 2014
- Annexure 24:** Minutes of the meeting of Doctoral Committee for Geology held on 25<sup>th</sup> August, 2014
- Annexure 25:** CV of Dr. Abdul Kareem for consideration and approval as a research supervisor
- Annexure 26:** Syllabi of the pre PhD courses for PhD (Biochemistry) programme, their transaction methods and the revised evaluation methodology approved by the School Board
- Annexure 27:** Minutes of the meeting of the Doctoral Committee for Geography held on August 8, 2014
- Annexure 28:** Syllabus for Pre-Ph.D. Coursework for PhD (Geology) programme, Transaction methods and Evaluation methodology for Pre-Ph.D. Course Work in Ph.D. (Geology) programme
- Annexure 29:** Progress Report of Shri Satish Konda
- Annexure 30:** Syllabi of the courses Fresh Water Aquaculture and Coastal Water Aquaculture