MINUTES OF THE 42ND MEETING OF THE SCHOOL BOARD OF THE SCHOOL OF SCIENCES HELD ON 8TH MARCH, 2011 AT 10.30 A.M. IN THE CONFERENCE ROOM, SCHOOL OF SCIENCES, IGNOU, MAIDAN GARHI, NEW DELHI - 110068.

The following members were present:

- Prof. Geeta Kaicker, Director (SOS), Chairperson 1
- Prof. P.T. Manoharan, Head, Raman Chair (Special Invites) 2.
- Prof. V.B. Bhatia (Retd.), University of Delhi 3.
- Prof. Anupam Dikshit, University of Aliehabad 4.
- Dr. Hriday Kant Dewan, Vidya Bhawan Society 5.
- Dr. Neera Singh, SOH, IGNOU 6.
- Dr. Naveen Kumar, SOCIS, IGNOU 7.
- Prof. Vijayshri, SOS, IGNOU 8.
- Prof. Synita (Separcs, SOS, IGNOS) Prof. Suomis als Stat, SOS, IGNOS
- 10.
- Prof. Sujabla Varida, pOS, IGNOU 11.
- Prof. B.I. Fozdar, SOS, IGNOU 12.
- 13. Prof. Neera Kapoot, SOS, IGNOU
- Prof. S.R. Jha, SOS, IGNOU 14.
- Prof. Javed A. Farooqi, SOS, IGNOU 15.
- Prof. Amrita Nigam, SOS, IGNOU 16.
- Dr. Lalita S. Kumar, SOS, IGNOU 17.
- Dr. Meenal Mishra, SOS, IGNOU
- Dr. Deepika, SOS, IGNOU 19.
- Dr. Kamalika Banerjee, SOS, IGNOU 20.
- Dr. Shubhalakshmi Lamba, SOS, IGNOU 21.
- Mr. Rajesh Kaliraman, SOS IGNOU 22.

Prof. R. Balasubramanian (The Institute of Mathematical Sciences, Chennai), Prof. H.S.P. Rao (Pondicherry University), Prof. Vibha Joshi (SOE, IGNOU), Prof. E. Vayunanadan (SOSS, IGNOU) Prof. S.C. Garg (SOS, IGNOU), Prof. B.S. Saraswat (SOS, IGNOU), Prof. S.S. Hasan (SOS, IGNOU) could not attend the meeting.

The chairperson welcomed all the members. Thereafter, the following items on the agenda were deliberated upon:

- Confirmation of the minutes of the 41st meeting of the School Board of the School of Item No. 1: Sciences held on 29th November, 2010 and to note the action taken thereon.
- Since no comments were received on the minutes of the 41st meeting of the School SB 42.1.1 Board, the minutes were confirmed. The action taken report on the Minutes of the 41st School Board meeting of the School of Sciences was considered and noted by the members.
- Matters arising from the minutes Item No. 2:
- Regarding Item No 4 of the minutes of the 41st School Board, Prof Vijayshri informed the SB 42.2.1 members that the Bio data of Dr. P.M. Ravi the co-supervisor of Mr. B.N. Dileep had been approved by the Doctoral Committee in Physics and had been placed in the School Board along with the other relevant papers and therefore, his name may be considered as approved. The Board agreed to this and approved Dr. P.M. Ravi as the co-supervisor for Mr. Dileep. As proposed by the Chairperson, the School Board also granted its appro-/al to the co-supervisors of those students already enrolled in the Ph.D. programmes whose

cand Ph.D. had already been approved in the past but the approval of cosupers and not been formally recorded in the Minutes.

Regarding No. 4 No. 7, the Physics discipline requested the School Board to reconsider and approve their proposal to admit only those candidates that are willing to work in full-time on Campus mode.

After due deliberation, the Board approved the addition of the following condition for admission in the Ph.D. programme in Physics:

"Only those candidates willing to work in the full-time on Campus mode will be admitted to the Ph.D. (Physics) programme at headquarters. All other candidates will be considered for admission in the programme by the Doctoral Committee on a case to case basis."

arding Item To 30 it was lected that in addition to the usual practic following the School of Sciences containing lists of moderators, evaluators and paper setters come each discipline group, the Director would ensure that the professors in the discipline are consulted before the lists are placed before the School Board.

Item No. 3: Reporting items

- SB 42.3.1 There was no reporting item.
- Item No. 4: To consider and approve the External Guides for Ph.D. programme in Chemistry as per the recommendation of the Doctoral committee meetings for July, 2010 and January, 2011 session.
- SB 42.4.1 The School Board considered the list of External Guides for Ph.D. programme in Chemistry as per the recommendation of the Doctoral Committee for July 2011 and January 2011.
- 58 42.4.2 The Board decided to recommend the names in the list to the Research Council (see as Annexure-1).
- Item No. 5: To consider and approve the minutes of the Doctoral committee meeting for Chemistry for January, 2011 session.
- The Board considered the recommendations of Doctoral Committee in Chemistry. Of the twelve candidates invited to present their proposals, only seven (07) appeared before the Committee of which two candidates 1). Chandra Prakash Narani, 2) Srinivasa Rao Ye lugoti, were recommended for admission to the PhD programme.
- SB 42.5.2 The recommendations of the Doctoral Committee were approved and are to be placed in the Research Council (see as Annexure-2).
- Item No. 6: To consider and approve the bio-data of Dr. Kamal Kant Dwivedi for recognition as research guide for Ph.D. in Chemistry.
- The School Board recommended that the complete bio-data of Dr. Kamal Kant Dwivedi along with details of publications be placed for consideration first in the Doctoral Committee of Chemistry before it is placed in the School Board.

- Item No. 7: To consider and approve the revised set of paper setters, evaluators and moderators for the Mathematics courses of the BDP programme and CTPM programme.
- \$8,42,7.1 The names given in the list of evaluators for the course MITE-01 (Calculus), list of evaluators and paper setters for the course MTE-02 (Linear Algebra), list of moderators, evaluators and paper setters for the course MTE-03 (Mathematical Mathods), list of evaluators for the courses MTE-04 (Elementary Algebra), MTE-05 (Analytical Geometry), MTE-06 (Abstract Algebra), MTE-07 (Advanced Calculus), list of moderators, evaluators and paper setters for the course MTE-08 (Differential Equations), list of evaluators for the course MTE-09 (Real Analysis), list of moderators, evaluators and paper setters for the course MTE-10 (Numerical Analysis), list of moderators, evaluators and paper setters for the course MTE-11 ad Statistics), list of panderators, evaluators and paper setters for the o 6 2 (Linear Programment)), ast of more races, evaluators and paper setters for the course MTE-13 (Discrete Mathematics), list of moderators; evaluators and paper setters for the course MTE-14 (Mathematical Modeling) and list of moderators, evaluators and paper setters for the course AOR-01 (Operations Research) of the BDP Programme were considered by the School Board.
- SB.42.7.2 The Board decided to recommend the names to the Vice-Chancellor for approval with the correction in the designation of Prof Parvin Sinclair as Professor of Mathematics, presently PVC IGNOU (see as Annexure-3).
- Item No. 8: To consider and approve the revised set of paper setters, evaluators and moderators for the mathematics courses of the M.Sc. (MACS) programme.
- The names given in the list of paper setters for the course MMT-002 (Linear Algebra), list of moderators, evaluators and paper setters for the course MMT-005 (Complex Analysis), list of moderators, evaluators and paper setters for the course MMTE-002 (Design and Analysis of Algorithms) list of moderators, evaluators and paper setters for the course MMTE-004 (Computer Graphics) and list of evaluators and Paper setters for the course MMTE-007 (Soft Computing and its Applications) of the M.Sc (MACS) Programme were considered by the School Board.
- SB.42.8.2 The Board decided to recommend the names to the Vice-Chancellor for approval with the correction in the designation of Prof Parvin Sinclair as Professor of Mathematics, presently PVC, IGNOU (see as Annexure-4).
- Item No. 9: To consider and approve the bio-data of Dr. B.S. Sudhindra, Regional Director, Bangalore for recognition as Research Guide for Ph.D. in Life Sciences.
- The Chairperson informed the Board that the bio-data of Dr. B.S. Sudhindra, Regional Director Bangalore for the recognition as research guide for Ph.D. in Life Sciences was placed in the Doctoral Committee in life Sciences for consideration. However, the committee was of the opinion that the Biodata of Dr Sudhindra be considered for approval as and when any student wishes to register with him for Ph.D.

- The Board decided that all such cases be first considered in the Doctoral Committees and only the recommendations be placed before the School Board
- Item No. 10: To reconsider and approve the Phase 3 Form of PG Certificate Programme in Bibliotopratics.
- The Phase-3 form for the PG Certificate Programme (Modular) in Bioinformatics was placed before the School Board for its reconsideration and approval after including the necessary details. In the light of suggestions made by the 41° School Board only approval for Certificate Programme in Bioinformatics was being sought in the first instance as the syllabus for the Diploma has not been designed. As desired by the School Board the minutes of the Expert Committee which was held on 9th and 10th September, 2009 at the Centre for Bioinformatics. Kerala University, Thiruvananthapuram were enclosed along with the Phase 3 Form.
- SB 42.10.2 The monthers approved the Phase 3 form of Certificate Programme in Bioinformatics (see
- Item No. 11: To consider and approve the revised list of moderators for the courses MED-001, MED-03 and MED-007 of the PGDESD Programme.
- The names given in the revised list of moderators for the courses MED-001 (Understanding the Environment), MED-003 (Energy and Environment) and MED-007 (Agriculture and Environment) of the PGDESD Programme were considered by the School Board.
- The Board decided to recommend the names to the Vice-Chancellor for approval (see as Annexure-6).
- Item No. 12: To consider and approve the additional list of paper setters and evaluators for the course MED-007 of the PGDESD Programme.
- The names given in the list of additional list of paper setters and evaluators for the course MED-007 (Agriculture and Environment) of the PGDESD Programme were considered by the School Board. The Board decided to recommend the names to the Vice-Chancellor for approval (see as Annexure-7).
- Item No. 13: To consider and approve the recommendations of Doctoral Committee in Life Sciences in its meeting held on 25th February, 2011.
- SB 42.13.1 The Board considered the recommendations of Doctoral Committee in Life Sciences. Sixteen candidates had presented their proposals of which the fourteen (14) recommended candidates are 1) Shiv Pujan, 2) Vipin Thomas, 3) Suman Kashyap, 4) Girinath Pillai, 5) R. Prasanna Srinivas, 6) Yogranjan, 7) Sujit Pratap Singh, 8) Arpita Bhattacharjee, 9) Sandipan Das, 10) Sujata Sinha, 11) Tazyeena Tabassum, 12) M. Neeraja, 13) Siddaiah BM and 14) Aman Ullah Khan. The biodata of the external cosupervisors were also considered.

The 6 monthly reports of the following students: 1) Meenakshi Thakur, 2) Virender Kurmar Aggarwal, 3) Kavitha S. 4) Puja Awasthi, 5) Anjan Kumar Sharma, 6) Pratibha Prashar and 7) Debashish Roy were considered.

The 3 monthly reports of the three RTAs 1) Ripu Dhaman Sood, 2) Anamika tripathi and 3) G. Lakshmi were considered.

- The above mentioned recommendations of the Doctoral Committee were approved and are to be placed in the Research Council (see as Annexure-8). The School Board also suggested that the Doctoral Committee in Life sciences could be expanded to include some other external experts to advice on the wide range of topics included in Life
- Item No. 14: To consider and approve the Phase 1 form for the Post Graduate Diploma in Applied Statistics with specializations in Industrial Statistics and Bio-Statistics.
- SB 42.14.1 The Board considered the Phase-I form for the Post Graduate Diploma in Applied Statistics with specializations in Industrial Statistics and Bio-Statistics.
- The School Board approved the Phase 1 form for the Post Graduate Diploma in Applied Statistics with specializations in Industrial and a collection of the Post Graduate Diploma in the English of the Post Graduate Diploma in Applied Statistics with specializations in Industrial associated with specializations in Industrial associated and attached with the Phase 1 Form; (ii) The target group should also include graduates in the relate fields. (see as Annexure-9).
- Item No. 15: To consider and approve the Phase-0 (Zero) Form for the B.Sc. (Physics) elective course PHE-07 (Electric and Magnetic Phenomena).
- The Board considered the Phase-0 (Zero) Form for the B.Sc. (Physics) elective PHE-07 (Electric and Magnetic Phenomena) and approved it (see as Annexure-10).
- Item No. 16: To consider and approve the Phase-0 (Zero) Form for the B.Sc. (Physics) elective course PHE-10 (Electrical Circuits and Electronics).
- SB 42.16.1 The Board considered the Phase-0 (Zero) Form for the B.Sc. (Physics) elective PHE-10 (Electrical Circuits and Electronics) and approved it (see as Annexure-11).
- Item No. 17: To consider and approve the Phase 1 Form for Ph.D (Geology) Programme for Category 'A'.
- SB 42.17.1 The Board considered the Phase 1 Form and Concept Note for Ph.D (Geology) Programme for Category 'A'.
- The School Board approved the Phase 1 form for Ph.D (Geology) Programme for Category 'A' with the suggestions that "under 16 b) Development", the first point "courses may be prescribed readings from relevant books", and "under 16 c) Delivery" point 2 and 3 "The candidate will be journals." should be deleted. (see as Annexure-12).
- Item No. 18: To consider and approve an additional list of Paper setters, evaluators, moderators for the courses LSE-07, LSE-13 and LT-02.
- The names given in additional list of papers setters, evaluators and moderators for the courses LSE-7 (Taxonomy and Evolution), LSE-13 (Plant Diversity-II) and LT-2 (Laboratory Techniques in Biology) were considered by the School Board. The Board decided to recommend the names to the Vice-Chancellor for approval (see as Annexure-13).

- Item No. 19: To ratify the action taken by Research Council in registering two RTAs in Life Sciences for Ph.D. for January, 2010.
- The Chairperson shared with the members that the approval of the registration of the following RTAs attached with the Centre for Bioinformatics, University of Kerela Thiruvananti apurum for Ph.D. in Life Sciences was obtained from the 17th Research Council meeting held on 23th December, 2010.
 - 1. Mr. Vipin Thomas
 - 2. Mr. Girinath G. Pillai
- The School Board noted the registration of the above mentioned RTAs in the Ph.D. Programme in LLCe Sciences (see as Annexure-14).
- Item No. 20: To consider and approve the Phase-3 Form for the groupsed Cost gaduate of different Programme in Geometrics.
- The School Board considered the Phase-3 form for P G Certificate in Geoinformatics. After detailed deliberations on the proposed syllabus the board was of the opinion that the syllabus is pitched at a much higher level than the requirement of a P G Certificate of formation.
- SB 42.20.2 The School Board, recommended that the syllabus be re-examined in an expert committee meeting and modified to suit the certificate level and be placed before the next School Board for reconsideration.

The Chairperson requested the members to consider the following tabled items.

- ITEM NO. 21: Tabled Agenda Items
- 21 (i) : To consider and approve the additional names for moderation board and paper setters for the Entrance Examination of M.Sc. (Chemistry) On Campus Full time Programme.
- SB 42.21(i).1 The names of Prof. R.N. Khanna (Retd.) (University of Delhi) and Prof. S.K. Dogra (Retd.) (IIT, Kanpur) were considered for moderation board and as paper setters for the Entrance Examination by the School Board. The Board decided to recommend the names to the Vice-Chancellor for approval (see as Annexure-15).
- To ratify the action taken by the Chairperson in recommending the names of paper setters, evaluators and moderators for the theory courses Basic Analytical Chemistre (MCH-001), Separation ivietnods (MCH-002), Spectroscopic Methods (MCH-003) and Electroanalytical and Other Methods (MCH-004) of the PGDAC programme for approval of the Vice-Chancellor.
- SB 42.21(ii).1 The Chairperson informed the members that the approval of the names of paper setters, evaluators and moderators for the theory courses Basic Analytical Chemistry (MCH-001), Separation Methods (MCH-002), Spectroscopic Methods (MCH-003) and Electro analytical and Other Methods (MCH-004) of the PGDAC programme was obtained from the VC. These lists were placed before the Board for ratification (see as Annexure-16).
- SB 42.21(ii).2 The Board ratified the action taken by the Chairperson in obtaining the approval by the Vice-Chancellor.

- To consider and approve the Phase 1 and Phase 3 Form of Ph.D. in Math and Science 21 (iii) Education.
- Professor PT Mancharan, Raman Chair presented the Phase 1 form including the concept SB 42.21(III).1 note and Phase 3 form for PhD in Math and Science Education. He explained that the syllabl for Math Education and Science Education had been formulated in two expert committee meetings.
- After discussion the School Board approved the Phase III form and the syllabus for course - SB 42.21(iii).2 work for students with a Master's degree that are eligible for Ph.D. in Math Education (see as Annexure-17). Math education has already been approved as an area of research along with other areas for Ph.D. in Mathematics by the School Board.

fowever, the School Board suggested that the syllabus for Ph.D. in Science Education make the re-expectation modification of the make members and a separate Phase III form should be filled for it.

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

Geeto haich : (Geeta Kaicker)

