MINUTES OF THE 38TH MEETING OF THE SCHOOL BOARD OF THE SCHOOL OF SCIENCES HELD ON 21ST NOVEMBER, 2008.

The following were present:

- 1) Prof. Sunita Malhotra, Director (SOS), Chairperson
- 2) Prof. S.P. Singh (Retd.), Kurukshetra University
- 3) Prof. G.S. Singh, IIT Roorkee
- 4) Prof. Adimurthi, TIFR Centre
- 5) Prof. C.R.K. Murty, STRIDE, IGNOU
- 6) Sh. P.V. Suresh, SOCIS, IGNOU
- 7) Dr. Ruchika Kuba, SOHS, IGNOU
- 8) Prof. B.S. Saraswat, SOS, IGNOU
- 9) Prof. Vijayshri, SOS, IGNOU
- 10) Prof. Poornima Mital, SOS, IGNOU
- 11) Prof. Sujatha Varma, SOS, IGNOU
- 12) Prof. Neera Kapoor, SOS, IGNOU
- 13) Prof. Pushplata Tripathi, SOS, IGNOU
- 14) Prof. S.R. Jha, SOS, IGNOU
- 15) Dr. Shubha Gokhale, SOS, IGNOU
- 16) Dr. Amrita Nigam, SOS, IGNOU
- 17) Dr. Bano Saidullah, SOS, IGNOU
- 18) Dr. Sanjay Gupta, SOS, IGNOU
- 19) Dr. S. Venkataraman, SOS, IGNOU
- 20) Prof. Parvin Sinclair, Pro-Vice-Chancelllor (Special Invitee)

Prof. C.K. Varshney (Retd.), JNU, Prof. K. Murlidhar, University of Delhi and Prof. S.V.S. Choudhary could not attend the meeting.

The meeting began with the Chairperson welcoming all the members.

Before considering the agenda, some members raised the issue of Prof. Parvin Sinclair attending the School Board meeting. The Chairperson explained that Prof. Sinclair had been invited to the meeting as a Special Invitee. She also apprised the members that in response to a request from the Mathematics discipline group, the Vice-Chancellor had permitted Prof. Parvin Sinclair, Pro-Vice-Chancellor to take part in all academic activities as a member of the mathematics discipline. Prof. Vijayshri pointed out that according to Statutes 2 (2), only the Vice-Chancellor is entitled to be present at, and address any meeting of any other authority or other body of the University and not the Pro-Vice-Chancellor. Therefore, Prof. Parvin Sinclair, Pro-Vice-Chancellor can not attend the meeting as a Special Invitee. To this, other members opined that since the Chairperson had invited her as a Special Invitee, she may be allowed to participate in the meeting. Prof. Vijayshri did not agree to this and desired that her dissent may be recorded in the minutes. (Later, she communicated her dissent in writing, a copy of which is enclosed with the minutes.) Further, some members expressed their concern that every time a lot of time of the School Board members is spent on this issue and it should be settled once for all. The Chairperson explained that as per the decision of the School Board, a clarification was sought from the Director, ACD requesting him to clarify the following:

Does Prof. Parvin Sinclair presently hold the position of Professor of 1. Mathematics in the School of Sciences? 2.

If not, can she be ex-officio member of the School Board of the School of Sciences under the above provision?

In response to this, Director (ACD) had reiterated the order of the Vice-Chancellor communicated earlier in response to the request of the Mathematics discipline as is mentioned above.

The Board decided that a clear-cut clarification regarding the membership of Prof. Parvin Sinclair, who is presently a PVC, be sought under Point 33 of the IGNOU Act.

Finally, it was decided that Prof. Sinclair, Pro-Vice-Chancellor could attend the School Board meeting as a special invitee.

Thereafter, the following items on the agenda were deliberated upon:

Confirmation of the minutes of the 37th meeting of the School Board Item No. 1: of the School of Sciences held on 30th May, 2008 and to note the action taken thereon

SB 38.1.1 While confirming the minutes, the comments received from Prof. Vijayshri were placed before the Beard.

In respect of the comments made by Prof. Vijayshri, the following SB 38.1.2 decisions were taken:

> Regarding Point 1, the members agreed to the suggested modification which was as follows:

> The name of Prof. Parvin Sinclair, Pro-Vice-Chancellor should not figure in the list of members present in the meeting as it is factually incorrect.

> Regarding Point 2, the paragraphs 4 and 5 of the minutes, the following was decided:

"Before considering the agenda Board meeting as a special invitee as a Pro-Vice-Chancellor" should be read as "At the very outset of the meeting, some Board members noted the presence of Prof. Parvin Sinclair, PVC and a point of order was raised that her participation in the meeting was not in accordance with the statutory provisions under Clause 10 A (2) (c) of the Statute 10 A. The Board also requested the Chairperson to seek a clarification on this, if required. After some discussion, members requested the Chairperson to give a ruling on this matter. The Chairperson ruled that Prof. Sinclair could attend this meeting as a special invitee. Then, Prof. Sinclair stated that she would like to attend the Board meeting as Professor of Mathematics and not as PVC and decided to leave."

- SB 38.1.3 Regarding Item no. 18, the last line of the first paragraph i.e., "The request was conceded." should be read as "The request was agreed to."
- SB. 38.1.4 With the above modifications, the minutes of the 37th meeting of the School Board were confirmed. The Action Taken Report on the Minutes of the 37th School Board meeting of the School of Sciences was considered and noted by the members.

It was pointed-out that in the Action Taken for Tabled agenda item 17 (iii), the present recording should be deleted.

Item No. 2: Matters arising from the Minutes

SB 38.2.1 No matter arose from the minutes.

Item No. 3: Reporting Items

- SB 38.3.1 The following were reported by the Chairperson.
 - 1. Four RTAs have joined the School of Sciences and they have been attached to the Life Sciences discipline.
 - 2. Ms. Arundhati Mishra, Ph.D Scholar in Physics has submitted her thesis on 9th June, 2008.
 - 3. The Post Graduate Diploma in Intellectual Property Rights has been shifted from the School of Sciences to School of Law by the order of the Vice-Chancellor. The Chairperson shared with the members that she explained the course of proceedings to the Programme Coordinator while the programme was being shifted. She also informed the members about the disagreement of the then Programme Coordinator, Prof. S. C. Garg to shift the programme and later his dissent (via e-mail) to the procedure adopted for shifting the programme. The members agreed that the procedure of shifting the programme followed in this case was not correct and insisted that the matter should have been brought to the School Board for its recommendation before shifting. During the course of discussion, the members were apprised of the decision of Academic Council (AC 42.6.3) for shifting of the programmes to their natural homes (copy enclosed as Annexure-I).

The Chairperson also shared with the members that after Prof. S.C. Garg proceeded on EOL, she had constantly apprised the new Programme Coordinator, Prof. Naval Kishor (SOMS), of the developments in this regard, and also informed him the details of the correspondence with Prof. S.C. Garg and Dr. Shubha Gokhale. He was also requested to convene a meeting of the Programme team. Meanwhile, the Director (SOL) intimated that the Faculty from SOS could still continue to be Programme Coordinator. This information was shared with Prof. S.C. Garg and Dr. Shubha Gokhale. Both of

them did not agree to be the Coordinators after the programme had been shifted.

Dr. Gokhale, who was present in the School Board also pointed-out that the term 'natural home' needs a wider discussion taking into consideration the contents and nature of the programme.

SB 38.3.2

The School Board decided that the matter should be taken up with the higher authorities after due deliberation in the programme team which may call an expert committee meeting, in which the experts/members from the School of Law may also be invited, to deliberate about the 'natural home' for this programme.

The Board advised that for any such decisions for any programme, the programme team should be taken into confidence.

- Item No. 4: To ratify the action taken by the Chairperson in recommending the names of course writers and editors for the Mathematics courses for approval by the VC/PVC
- The Chairperson informed the members that in view of the urgency of development of course materials, the approvals of the course writers for the courses MMT-008, MMTE-003, MMTE-001 and editors for the courses MMTE-002 and MMTE-004 of M.Sc. (MACS) programme were obtained from the VC/PVC. These lists were placed before the Board for consideration and ratification.
- SB 38.4.2 The Board noted and ratified the action taken by the Chairperson in obtaining the approvals of the course writers for the courses MMT-008, MMTE-003, MMTE-001 and editors for MMTE-002 and MMTE-004 by the VC/PVC. These lists are enclosed as Annexure-II.
- Item No. 5: To ratify the action taken by the Chairperson in recommending the names of a member of the Moderation Board of MMT-003 (Algebra) and external examiners for the term end practical examination for the courses MMT-007 (Differential Equations) and MMT-001 (Programming and Data Structures) for approval by the VC/PVC
- The Chairperson informed the members that in view of December 2008 Term-end Examination, the approvals of the name of a member of the Moderation Board of MMT-003 and external examiners for the term end practical examination for the courses MMT-007 and MMT-001 of M.Sc. (MACS) programme were obtained from the VC/PVC. These names were placed before the Board for consideration and ratification.
- The Board noted and ratified the action taken by the Chairperson in obtaining the approvals of the names of a member of the Modeation Board of MMT-003 and external examiners for the term end practical examination for the courses MMT-007 and MMT-001 of M.Sc. (MACS) programme by the VC/PVC. These lists are enclosed as Annexure-III.

Item No. 6: To consider and recommend the list of members of the Moderation Board, evaluators and paper-setters for MMT-003 (Algebra), Moderation Board and paper-setters for MMT-007 (Differential Equations and Numerical Solutions)

SB.38.6.1 The School Board considered the lists and decided the following:

a) i) Regarding the list of members of the Moderation Board for MMT-003 course, the members pointed out that the matter related to the name of Prof. Parvin Sinclair was discussed and decided in the previous School Board (Ref. SB37.17(i).2 a and b), the minutes of which have been confirmed already. Therefore, the name of Prof. Parvin Sinclair, PVC cannot appear in column 3 and column 5 until a clarification with reference to the membership of Prof. Parvin Sinclair (PVC) sought under Point 33 of the IGNOU Act is available.

The names of the other members were approved by the School Board. However, the members suggested that to facilitate the moderation work, the present arrangement by the Director (SOS), Chairperson of the moderation board, may continue.

ii) Regarding the lists of paper-setters and evaluators for MMT-003 course, the members considered the list and pointed out that the particulars of Prof. Parvin Sinclair be mentioned as follows:

Prof. Parvin Sinclair Pro-Vice-Chancellor IGNOU

and not as

Prof. Parvin Sinclair School of Sciences IGNOU

The Board decided that this will apply to her name wherever it is included in other lists also.

- b) i) In the list of members of the Moderation Board of MMT-007, the Board added the following name under column 4.
 - 1. Dr. R.K. Panda, Deptt. of Mathematics, University of Delhi
 - ii) In the list of members of the paper-setters of MMT-007, the Board added the following name.
 - 1. Dr. P.S. Dutti, TIFR Centre, Bangalore

- iii) An error in the title of the course was also pointed-out which has been rectified in the list enclosed with the minutes.
- SB 38.6.2 The names given in the lists of members of Moderation Board, evaluators and paper-setters for MMT-003, members of Moderation Board and paper-setters for MMT-007 were considered by the School Board. The Board decided to recommend the names with the above modifications to the Vice-Chancellor for approval. These lists are enclosed as Annexures-IV and V.
- Item No. 7: To consider and recommend the list of members of Moderation Board for the course MTE-13, members of Moderation Board and paper-setters for MTE-03, MTE-08, MTE-10 and MTE-14
- The names given in the list of members of Moderation Board for the course MTE-13, members of Moderation Board and paper-setters for MTE-03, MTE-08, MTE-10 and no MTE-14 were considered by the School Board. The Board decided that in the list of paper-setters for MTE-03 course, the name of Prof. Parvin Sinclair will be included as mentioned in SB 38.6.1 a (ii). The Board decided to recommend the names in the lists with the above modification to the Vice-Chancellor for approval. These lists are enclosed as Annexure-VI.
- Item No. 8: To consider and recommend the panel of experts for the Doctoral Committee for the Ph.D Programme in Mathematics
- The list of experts for the Doctoral Committee for the Ph.D Programme in Mathematics was considered by the School Board. The members suggested the addition of the following two experts in the list.
 - 1. Prof. Adimurthi, TIFR Centre, Bangalore
 - 2. Prof. G.D. Veerappa Gowda, TIFR Centre, Bangalore
- SB 38.8.2 The Board decided to recommend the names in the list with the above additions to the Vice-Chancellor for approval. The recommended list is enclosed as Annexure-VII.
- Item No. 9: To consider the progress report of Ms. Arti Kaushik, Ph.D scholar in Mathematics
- SB 38.9.1 The Progress Report submitted by Ms. Arti Kaushik, Ph.D scholar alongwith the observations of her supervisors Prof. Poornima Mital and Dr. D.K. Khattar, was placed before the School Board members.
- SB 38.9.2 The members considered the report and noted with satisfaction the progress made by Ms. Arti Kaushik in the Ph.D programme. The progress report is enclosed as Annexure-VIII.

- Item No. 10: To consider and recommend internal and external examiners for the term-end practical examination of MMT-008 (Probability and Statistics) course
- The lists of internal and external examiners for the term-end practical examinations of MMT-008 course of M.Sc. (MACS) programme were considered by the School Board. The Board decided to recommend the names in the lists to the Vice-Chancellor for approval. These lists are enclosed as Annexure-IX.
- Item No. 11: To consider and approve the Phase Zero forms and revised syllabi of PHE-04, PHE-05, PHE-06 and PHE-08(L) courses
- SB 38.11.1 The Board considered the Phase Zero forms and revised syllabi of PHE-04, PHE-05, PHE-06 and PHE-08 (L) Physics electives. It was suggested that in the Phase Zero forms for these courses, in Point 8 d), it should be stated that the enrollment mentioned is *course-wise*. Also, the Academic rationale in Point 9 for PHE-04 and PHE-05 courses should be elaborated. Some modifications were suggested in the format of titles of experiments in PHE-08 (L).
- SB.38.11.2 The Board considered and approved the Phase Zero forms for the PHE-04, PHE-05, PHE-06 and PHE-08 (L) courses with the above modifications. The Phase Zero forms with the above modifications are enclosed as Annexure-X.
- Item No. 12: To consider and recommend the lists of course writers of PHE-06 and PHE-08(L)
- The lists of course writers for the Physics elective courses PHE-06 and PHE-08 (L) courses were considered by the School Board. The Board was informed that the IGNOU Physics faculty would also be writing the units of these courses and also for PHE-04 and PHE-05 courses and editing of these courses would be taken care of the internal faculty itself.
- SB 38.12.2 The Board decided that the names of the internal faculty may also be included in the list of course writers.

The Board decided to recommend these names of the course writers for the courses PHE-04, PHE-05, PHE-06 and PHE-08 (L) to the Vice-Chancellor for approval. These lists are enclosed as Annexure-XI.

- Item No. 13: To consider and approve the Phase Zero form for Application Oriented Course in Horticulture in Life Sciences
- SB 38.13.1 The Board considered the Phase Zero form for Application Oriented Course in Horticulture in Life Sciences. The Board advised that

- The course proposer should asce Agriculture is offering any similar avoid duplication of efforts.

 there the School of oping programmes to
- The proposer should check with the RSD, the availability of the counsellors and other support in the implementation of this course as it involves project work.
- The modalities for the evaluation of the project work should be worked out.

The course proposer explained the following:

- Self-instructional course materials suitable for the learners will be prepared.
- CDs will be prepared to extend support to the learners.
- For the first five years, the IGNOU Faculty involved in the course work would evaluate the projects related to the course.
- SB 38.13.2 The Board approved the Phase-Zero form (enclosed as Annexure-XII) and suggested that an Expert Committee meeting may be held to discuss and decide various aspects related to design, development and implementation of this course. It advised the course proposer to initiate action on the three concerns of the Board. The outcome of these activities may then be reported to the Board.
- Item No. 14: To consider and approve the Phase 1 form for Certificate in Teaching Elementary Science (CTES)
- The Board considered the Phase 1 form for Certificate programme in Teaching Elementary Science (CTES). The members desired to know the response to the clarifications sought in the earlier School Board meeting. Dr. Bano Saidullah explained the need and the rationale of the programme. She also mentioned that the Programme Coordinators would be decided later and the minutes of the Expert Committee meeting have been provided to the Board members. The members suggested the following:
 - The experience of the earlier programmes launched for improving the quality of science teaching and for training of teachers at School level (e.g., FGCPDT programme for Navodaya Vidayla ya Teachers) should be evaluated.
 - Involvement of Experts from School of Education and those people associated with activities envisaged in this programme should be sought.

It was suggested that the following experts may be associated with this programme:

- 1) Prof. S. Kumresan, Department of Mathematics, University of Mumbai
- 2) Prof. V.B. Bhatia (Retd.), Department of Physics and Astrophysics, University of Delhi

- 3) Prof. V.S.P. Srivastava, DESM, NCERT, New Delhi
- 4) Teachers from Mirambika

Regarding the design of the course, the members recommended that the contents should focus on how to teach and not on the very specific hardcore concepts from the subject areas of Science. The emphasis should be on improving the quality of teaching of Science in Schools.

- SB 38.14.2 As mentioned in the minutes of the Expert Committee meeting, a feedback from the teachers should be taken to know about the difficulties faced by the teachers and their experiences in teaching of science to finally decide the nature and scope of contents of the courses of this programme.
- SB 38.14.3 In the Phase 1 form, the following modifications were agreed:
 - In Point 16, specific information should be provided under different headings for collaborative arrangements and not the general statements.
 - Under Point 19, the proposed launch date would be July, 2011.
- SB 38.14.4 The members approved the Phase 1 form for Certificate programme in Teaching Elementary Science (CTES) with the above recommendations and modifications.

The Phase 1 form with the above modifications is enclosed as Annexure-XIII.

- Item No. 15: To consider and approve the Phase 3 form for Doctoral Programme in Life Sciences
- SB 38.15.1 The Board considered the Phase 3 form for the Doctoral programme in Life Sciences. The Chairperson mentioned that the Phase 2 form is yet to be approved by the Planning Board as is required to be stated in Point 22 of this form.

The members recommended the following:

- 1. The list of books at the end of the courses should be clearly divided as suggested books and reference books.
- 2. Regarding the specialized optional courses worth 8 credits to be taken by the Ph.D candidates, the following should be added these courses should be chosen in consultation with the supervisor.

The members also suggested that

- The courses on offer may also be presented in a tabular form.
- The list of the courses may include courses related to environment.

It was agreed that the delivery mechanism from the following should be clearly specified for each of the courses.

- Face-to-face teaching,
- Printed course material,
- Wrap around material,
- Reference material / text books,
- Any combination of above.
- SB 38.15.2 The members approved the Phase 3 form for Doctoral programme in Life Sciences with the above modifications and suggestions. This is enclosed as Annexure-XIV.
- Item No. 16: To consider and approve the Phase 1 form for M.Phil programme in Chemistry
- SB 38.16.1 The Board considered the Phase 1 form for M.Phil programme in Chemistry. The members pointed out that in Point 7, number of credits for course development under the existing workload of the discipline should be the same in M.Phil and Ph.D programmes (placed as Item no. 17).

Also, the details of the eligibility for Ph.D Programme in Chemistry should be deleted from the Programme structure of the M.Phil Programme.

Regarding delivery mechanism under 17 c), the members desired to know the details of the strategies for which the following were suggested:

- Face-to-face teaching,
- Printed course material,
- Wrap around material,
- Reference materials, Journals,
- Text books.
- Video conferencing using the available facilities,
- Any combination of above.
- SB 38.16.2 The members approved the Phase 1 form for M.Phil programme in Chemistry with the above changes. The Phase 1 form after incorporating the above changes, is enclosed as Annexure-XV.
- Item No. 17: To consider and approve the Phase 1 form for Ph.D Programme in Chemistry
- SB 38.17.1 The Board considered the Phase 1 form for Ph.D Programme in Chemistry. The members pointed out that in Point 7, number of credits for course development under the existing workload of the discipline should be the same in M.Phil and Ph.D programmes.

Also, the details of the eligibility for the M.Phil Programme should be deleted from the Programme structure of the Ph.D Programme.

Regarding delivery mechanism under 17 c), the following were suggested:

- Face-to-face teaching.
- Printed course material.
- Wrap around material,
- Reference materials, Journals,
- Text books,
- Video conferencing using the available facilities.
- Any combination of above
- SB 38.17.2 The members approved the Phase 1 form for Ph.D programme in Chemistry with the above changes. The Phase 1 form after incorporating the suggested changes, is enclosed as Annexure XVI.
- Item No. 18: To consider and recommend for approval the lists of course writers for revision of Chemistry courses of B.Sc. 1st year
- The lists of course writers for the revision of Chemistry courses of B.Sc. 1st year were considered by the School Board. The members suggested that it should be treated as Ex post-facto as these approvals were taken earlier. The Board agreed to this and recommend the names. These lists are enclosed as Annexure-XVII.
- Item No. 19: To consider and recommend for approval the list of course writers of PGDAC courses
- SB 38.19.1 The lists of course writers of Post Graduate Diploma in Analytical Chemistry (PGDAC) were considered by the School Board. Similar to the above, these were also treated as Ex post-facto in the light of the earlier approvals. The Board decided to recommend the names. These lists are enclosed herewith as Annexure-XVIII.
- Item No. 20: To consider and approve the recommendations of the Committee appointed by the School Board of the School of Sciences at 37th meeting to frame guidelines for smooth conduct and evaluation of laboratory courses
- The members considered the recommendations of the Committee appointed by the School Board of the School of Sciences at 37th meeting to frame guidelines for smooth conduct and evaluation of laboratory courses. The Board approved these recommendations. The recommendations of the committee are enclosed as Annexure-XIX.

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

ITEM-NO. 21: Tabled Agenda Items

- 21 (i): To ratify the action taken by the Chairperson in recommending the names of experts for Doctoral Committee in Life Sciences for approval by the Vice-Chancellor
- SB 38.21(i).1 The members ratified the action taken by the Chairperson in recommending the names of experts for Doctoral Committee in Life Sciences for approval by the Vice-Chancellor. The list of experts for the Doctoral Committee in Life Sciences as ratified by the School Board is enclosed herewith as Annexure-XX.
- 21 (ii): To approve the synopses of RTAs approved in Doctoral Committee of Life Sciences
- SB 38.21(ii).1 The Chairperson apprised the members that the meeting of the Doctoral Committee (approved by the Vice-Chancellor) was held which had approved the synopses of the following RTAs:
 - 1. Ms. Ripu Daman Sood
 - 2. Ms. G. Lakshmi
 - 3. Ms. Anamika Tripathi
- SB 38.21(ii).2 The Board noted the approval of the Doctoral Committee of Life Sciences for the synopses submitted by above mentioned RTAs and recommended the same for approval by the Research Council. These are enclosed as Annexure-XXI.
- 21 (iii): To approve Dr. Kamalika Banerjee (Kar), Lecturer in Chemistry, School of Sciences, as Research Guide of IGNOU
- SB 38.21(iii).1 The application of Dr. Kamalika Banerjee (Kar) as a Research Guide of the University for Ph.D programme in Chemistry was placed for the consideration of the School Board. The Board recommended her name as a Research Guide.

The Chairperson informed that the Director (ACD) that returned the request of placing the recommendation of the School Board (Reference SB. 37.8.2) of Dr. Manaorama Singh as Research Guide of the University before the Research Council for approval. It has been suggested that the same should be placed later when Ph.D Programme in Chemistry is launched, for convenience in maintaining the records.

SB 38.21(iii).2 The School Board decided that the recommendation should be sent for consideration of the Research Council and Director (ACD) should be requested to place her case as well as that of Dr. Manaorama Singh, DD, IGNOU RC- Lucknow, for consideration of Research Council keeping in view the earlier decision of the Director (ACD) for placing the case of

Prof. V.N. Rajashekharan Pillai, Vice-Chancellor, IGNOU to the Research Coundil for approval as a Research Guide. The Application of Dr. Kamilika Banerjee is enclosed with the minutes as Annexure-XXII.

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

(Sunita Malhotra)

