

Eleventh Meeting of the Senate

8th August 2014, 11:00 hrs

AGENDA



ACADEMY OF SCIENTIFIC AND INNOVATIVE RESEARCH

Headquarters: Training and Development Complex,
CSIR Campus, CSIR Road, Taramani, Chennai- 600 113

Coordination Office: CSIR-Central Road Research Institute,
CRRRI P.O., Delhi-Mathura Road, New Delhi- 110 025

(This page is intentionally left blank)

Agenda for the 11th Meeting of the Senate

8th April 2014; 11:00 hrs

Venue: Room No. 101, CSIR Headquarters, 2 Rafi Marg, New Delhi 110001

Item	Page No.	Annexure	
INITIATION OF THE MEETING			
1	Welcome Address by Chairman of the Senate and Acting Director, AcSIR	1	-
2	Confirmation of the minutes of the 10 th meeting of the Senate	1	A-1
3	Action Taken Report (ATR) on the 10 th meeting of the Senate	1	A-2
ITEMS FOR RATIFICATION			
4	MTech results (2012-14 batch) for the award of the Degree	2	A-3
5	PhD (Science) results for the award of the Degree	3	A-4
6	Admissions for the August 2014 session (i) PhD program in Science and Engineering (ii) Integrated MTech-PhD program in Engineering (iii) Integrated MSc-PhD program in Clinical Research and Health Informatics (AcSIR-PHFI) (iv) Post Graduate Diploma in Patinformatics	4 4 4 5	A-5 A-6 A-7 A-8
7	Provisional Admissions: (i) CSIR-IGIB; (ii) CSIR-IICB; (iii) CSIR-NML; (iv) CSIR-IICT	6	A-9
8	Course Related Items: a) Corrections in approval by 10th Senate (i) Incorrect reporting of courses in Engineering Sciences instead of Chemical Sciences (CSIR-AMPRI) at 10 th Senate meeting. Correction submitted for ratification. b) Approval of courses retrospectively (i) CSIR-NML (Engineering); (ii) CSIR-IHBT (Chemical); (iii) CSIR-IGIB (Biological)	8 8	A-10(a)

	Item	Page No.	Annexure
	c) Introduction of New Courses <ul style="list-style-type: none"> • Biological Sciences (i) CSIR-NCL; (ii) CSIR-IGIB; (iii) CSIR-IHBT; (iv) CSIR-CSMCRI; (v) CSIR-CDRI; (vi) CSIR-IITR; (vii) CSIR-NIIST; (viii) CSIR-CFTRI • Chemical Sciences (ix) CSIR-NIIST; (x) CSIR-CRRI • Engineering Sciences (xi) CSIR-IICT; (xii) CSIR-NCL; (iii) CSIR-NIIST; (xiv) CSIR-CSIO; (v) CSIR-CRRI • Physical Sciences (xvi) CSIR-NIIST; (xvii) CSIR-CSIO; (xviii) CSIR-CRRI 	11 13 14 15	A-10(b)
	d) Modification of Courses <ul style="list-style-type: none"> • Biological Sciences (i) CSIR-IGIB; (ii) CSIR-CSMCRI; (iii) CSIR-CDRI • Chemical Sciences (iv) CSIR-CSMCRI; (v) CSIR-IICT; (vi) CSIR-CDRI • Engineering Sciences (vii) CSIR-NML; (viii) CSIR-CEERI; (ix) CSIR-NCL; (x) CSIR-CSIO • Physical Sciences (xi) CSIR-CSIO • Mathematical and Information Sciences (xii) CSIR-NISTADS 	16 17 18 22 22	A-10(c)
ITEMS FOR INFORMATION			
	Student Related Items: <ul style="list-style-type: none"> a) Transfer of students <ul style="list-style-type: none"> (i) CSIR-CDRI to CSIR-IICT (ii) CSIR-IHBT to CSIR-CDRI b) Change of Faculty of study by students <ul style="list-style-type: none"> (i) Chemical Sciences to Physical Sciences at CSIR-CECRI, Ms. S Jayashree (ii) Engineering Sciences to Chemical Sciences at CSIR-NCL, Asheesh Kumar (iii) Chemical Sciences to Engineering Sciences at CSIR-IICT, Ms. Hemalatha Kilari (iv) Biological Sciences to Engineering Sciences at CSIR-IICT, Nikhil Gauravarapu Navlur (v) Physical Sciences to Engineering Sciences at CSIR-CSIO, Shveta Kumari 	23 24	A-11 A-12
9			

Item		Page No.	Annexure
	c) Waiver of minimum residency (i) Ms. Deepti Mishra and Ms. Shruti Agarkar of CSIR-NCL for submission of PhD thesis (ii) Mr. Krishna Nimesh, Trainee Scientist (APST) at CSIR-IIP for submission of MTech thesis	24	A-13 (a) & (b)
10	Constitution of the Finance Committee of AcSIR	26	A-14
11	HRD Recognition of AcSIR	26	-
12	Updates on Faculty status of AcSIR New/Modified list received since 10 th Senate	26	A-15
ITEMS FOR DISCUSSION & APPROVAL			
13	Provisional Admission related issue at CSIR-IICT (i) Joshi Prabhakar Ramchandra (ii) Srivalli Susmitha Ghatti	27	A-16
14	Thesis submission and Award of Degree related issue (i) Mr. Ashok Vardhan Konal of CSIR-IICT (ii) Mr. Kota Ramanjaneyulu of CSIR-IICT	28	A-17 (a) & (b)
15	In principle permission to take up Monbukagakusho Scholarship by Ms. Rishemjit Kaur at CSIR-CSIO	29	A-18
16	Application for leave of absence of Mr. Tariq Zyed, a Trainee Scientist at CSIR-CRRI	30	A-19
17	Faculty Related Issues: Recognition of Scientists having specific qualification/holding a position at CSIR institutes (i) CSIR-Staff having MVSc qualification (ii) Senior Research Associate (CSIR Scientists Pool Scheme) (iii) Status of Faculty as a Guide after superannuation with reference to the requests received for: a) Prof. JS Yadav, Bhatnagar Fellow at CSIR-IICT b) Prof. P. Ghosh of CSIR-CSMCRI (iv) Adjunct Faculty a) Dr. Amitabh Saraf (at CSIR-NAL) b) Prof. Srinivas Reddy (at CSIR-SERC)	31 31 32 32	A-20

Item		Page No.	Annexure
18	Draft MoA between AcSIR and The L. V. Prasad Eye Institute, Hyderabad, through its research arm the Hyderabad Eye Research Foundation (HERF)	33	A-21
19	Report of the Senate Committee for adoption of 'Online Courses' at AcSIR	34	A-22
20	Recommendation of Senate Committee on Dual Faculty position	35	A-23
21	Issues related to GATE-JRF fellowships admissible per laboratory	36	A-24
22	Provision for sanction of Hiatus/Break Period for AcSIR-PhD students	37	-
23	Continuation of PhD as Part time candidate for submission of thesis after completion all the pre-PhD Courses, research requirement for the degree and the minimum residency period	39	-
24	Issues related to the AcSIR-PhD program in the field of Computational Biology at CSIR-NISCAIR	40	-
25	Modification in Convocation Protocol	40	-
26	Evaluation procedure for the Faculty of AcSIR, as per the suggestions of the Board	41	-
27	Any other items with the permission of the Chair	-	-

Initiation of the Meeting

Item No. 1 Welcome address by the Chairman of the Senate and Acting Director, AcSIR

Remarks by the Chairman, Senate of Academy of Scientific and Innovative Research (AcSIR) welcoming all the members attending the meeting.

Item No. 2 Confirmation of the minutes of the 10th meeting of the Senate

The 10th meeting of the Senate of AcSIR was held on April 4, 2014 at Room No. 101, Anusandhan Bhawan, Rafi Marg, New Delhi.

The proceedings of the 10th meeting were accepted by the Chairman and circulated among the members of the Senate by e-mail on April 19, 2014 for their comments/ observations.

A minor comment received related to the approval of the CSIR-AMPRI proposed courses under Engineering Sciences have been rectified to that in Chemical Sciences and appropriately marked in the Minutes. No other comments has been received from any of the members.

The minutes are being put to the Senate for confirmation at **Annexure A-1**.

Item No. 3 Action Taken Report (ATR) on the 10th Meeting of the Senate

The Action Taken Report on the Proceedings of the 10th meeting of the Senate of AcSIR held on April 4, 2014 is furnished at **Annexure A-2**.

Item for Ratification

Item No. 4 **MTech results (2012-14 batch) for the award of the Degree**

The fourth batch of 2+3 year fulltime residential Integrated MTech-PhD program of AcSIR took admission in 2012. Out of a total 119 students who had taken admission, 109 have successfully completed the MTech part of the program and are graduating in 2014. The programs were offered in the following technological areas:

Building Engineering and Disaster Mitigation (CSIR-CBRI),
Advanced Semiconductor Electronics (CSIR-CEERI),
High Power Microwave Devices and System Engineering (CSIR-CEERI),
Advanced Electronic Systems (CSIR-CEERI),
Mechatronics (CSIR-CMERI),
Applied and Computational Mechanics (CSIR-CMERI),
Advanced Instrumentation Engineering (CSIR-CSIO),
Advanced Petroleum Science & Technology (CSIR-IIP),
Advanced Automotive Technology (CSIR-IIP),
Materials and Metallurgical Engineering (CSIR-IMMT),
Environmental System Engineering and Modeling (CSIR-NEERI),
Glass and Ceramic Engineering (CSIR-CGCRI),
Advanced Materials Physics and Engineering (CSIR-NPL),
Mine Safety Engineering (CSIR-CIMFR),
Process Engineering Science (CSIR-IICT),
Renewable Engineering (CSIR-SERC),
Transportation Engineering (CSIR-CRRI), and
Engineering of Structures (CSIR-SERC).

The programs have all the rigors and requirements that are proposed in the Integrated MTech-PhD program of AcSIR.

The results of the 109 students have already received approval of the Dean of Engineering Sciences and the Chairman, Senate and are being placed to the Senate for ratification. The MTech degree is to be conferred to the successful students at the 4th Convocation of the Academy.

The results of the MTech-2012-14 batch having 113 successful students are being placed for ratification by the Senate at **Annexure A-3**.

Item for Ratification

Item No. 5 PhD (Science) results for the award of the Degree

The PhD program of AcSIR has formally begun from the January 2011 session across all the CSIR laboratories. Currently the program have around 2500 students enrolled/registered across the Labs in the five faculties of study.

The results of sixteen students were ratified by the Board for the award of PhD degree at its fifth meeting held on April 24, 2014 at Chennai. Since the last Convocation of AcSIR, 40 students have completed all the academic requirements for the award of the PhD (Science) degree including successful completion of the viva voce examination. The Chairman, Senate has already approved the award of the degree. The results are being placed for ratification by the Senate for the award of the formal degree to the student at the Convocation of AcSIR.

The reports of the viva-voce examination committee of all the 24 students (that has not been tabled at the Senate earlier) along with the approval of the Chairman, Senate are being placed Senate for ratification of the results for the award of the formal degree as **Annexure A-4**.

Results of 16 awardees (nos. 6-21) have already been ratified at the 10th Senate. All the 40 students will be awarded their degrees at the 4th Convocation of AcSIR.

SI No.	Student Name	Enrollment No.	Lab Name	Session	Faculty
22	Alok Kumar Verma	10BB11J22025	CSIR-IITR	January 2011	Biological Sciences
23	Basit Yousuf	10BB11A16016	CSIR-CSMCRI	August 2011	Biological Sciences
24	Ashok Vardhana Reddy Konala **	10CC11J18081	CSIR-IICT	January 2011	Chemical Sciences
25	Vipender Singh	10CC11J18023	CSIR-IICT	January 2011	Chemical Sciences
26	Kamal Kumar Bisht	10CC11J16016	CSIR-CSMCRI	January 2011	Chemical Sciences
27	Manish Kumar	10CC11J16012	CSIR-CSMCRI	January 2011	Chemical Sciences
28	Bhawan Singh	10CC11J19011	CSIR-IIP	January 2011	Chemical Sciences
29	Anjan Das	10CC11J16011	CSIR-CSMCRI	January 2011	Chemical Sciences
30	Avinash Kumar	10BB12J04003	CSIR-CDRI	January 2012	Biological Sciences
31	Arpan Kiritbhai Shah	10CC11J16029	CSIR-CSMCRI	January 2011	Chemical Sciences
32	Harish Kumar	10CC11J18016	CSIR-IICT	January 2011	Chemical Sciences
33	Deepti Jain	10BB11J16007	CSIR-CSMCRI	January 2011	Biological Sciences
34	Kumari Kavita	10BB11J16001	CSIR-CSMCRI	January 2011	Biological Sciences
35	Narottam Sutradhar	10CC11J16017	CSIR-CSMCRI	January 2011	Chemical Sciences
36	Tina Chakrabarty	10CC11J16026	CSIR-CSMCRI	January 2011	Chemical Sciences
37	T. Palaniselvam	10CC11J26013	CSIR-NCL	January 2011	Chemical Sciences
38	Vandana Singh	10BB11J25006	CSIR-NBRI	January 2011	Biological Sciences
39	Pala Rajasekharreddy	10BB11J18110	CSIR-IICT	January 2011	Biological Sciences
40	Amarnadh Jasti	10CC11A16012	CSIR-CSMCRI	August 2011	Chemical Sciences
41	Koilraj P	10CC11J16019	CSIR-CSMCRI	January 2011	Chemical Sciences
42	D. Naga Durgasri	10CC11J18080	CSIR-IICT	January 2011	Chemical Sciences
43	V Pramod Chodimella	10CC11J18040	CSIR-IICT	January 2011	Chemical Sciences
44	Pradip Pachfule	10CC12J26024	NCL, Pune	January 2012	Chemical Sciences
45	Tamas Kumar Panda	10CC11J26027	NCL, Pune	January 2011	Chemical Sciences

**Subject to approval of the Senate as per Item No 14 (a) of the Agenda

Item for Ratification

Item No. 6: Admissions for the August 2014 session

a) PhD program in Science and Engineering

The admission for the Ph.D. program in Science and Engineering for the August 2014 session has been completed at different participating CSIR laboratories.

In all **423** students have been selected for PhD program in Science (**321**) and Engineering (**102**) at the different Labs. The Lab-wise list of selected candidates in the form of the Proceedings of the Selection Committee meeting for the PhD programs with proper approval from cluster Deans and the Chairman, Senate are being placed to the Senate for ratification at **Annexure A-5**.

A few selection will be ratified at the next meeting of the Senate.

b) Integrated MTech-PhD program in Engineering

The admission for the Integrated MTech-PhD program in Engineering for the 2014 session has been completed at different participating CSIR laboratories. In this session 12 Engineering Laboratories have participated offering courses in 16 specialized areas of study.

In all **83** students have been selected across the 12 participating laboratories. The Lab-wise list of selected candidates in the form of the Proceedings of the Selection Committee meeting for the Integrated MTech-PhD program with proper approval from the Dean, Engineering Sciences and the Chairman, Senate are being placed to the Senate for ratification at **Annexure A-6**.

c) Integrated MSc-PhD program in Clinical Research and Health Informatics (AcSIR-PHFI)

The joint academic program of AcSIR and PHFI for Integrated MSc-PhD in *Health Informatics* and *Clinical Research* has formally taken off from the August 2013 session. The second batch of students for the programs have been selected and the session will start from August 2014.

Accordingly **14** students have been selected for the program in *Health Informatics* and **16** for the program on *Clinical Research*. The list of selected students for both the programs, with due approval from the Dean, Biological Science and the Chairman, Senate are being placed at **Annexure A-7** for consideration.

d) Post Graduate Diploma in Patinformatics

The proposal from CSIR-URDIP for introduction of a *Post Graduate Diploma in Patinformatics* received the approval of the Senate at its 9th meeting held on December 19, 2013 and subsequently of the Board at its 5th meeting held on March 24, 2014.

Accordingly, the first batch of students have been selected for the August 2014 session. The list of selected students for the program, duly approved by the Associate Dean, MIS and the Chairman, Senate is placed at **Annexure A-8**.

Item for Ratification

Item No. 7: Provisional Admissions

Requests have been received for provisional admission of a few students at AcSIR from the following three laboratories:

a) CSIR-IGIB

CSIR-IGIB has conducted their PhD admissions for the August 2014 session through a separate call for admissions. Thirty eight students were selected and 6 students were waitlisted for the PhD program at CSIR-IGIB.

These students may be provisionally enrolled at AcSIR who will complete all admission formalities during AcSIR's next call for admissions. This period of provisional enrollment may be considered for calculation of their minimum residency period. The provisional admissions have received approval of the Dean of Biological Sciences and the Chairman, Senate.

The relevant documents are enclosed at **Annexure A-9(a)**.

b) CSIR-IICB

AcSIR has received a request from CSIR-IICB for provisional enrollment of 5 following students having GATE-JRF fellowships:

Anu Raju (Biological Sciences)
Ashok Mandala (Biological Sciences)
Eswara Murali Satyavarapu (Biological Sciences)
Ajay Kanungo (Chemical Sciences)
Kalyani Kasimalla (Chemical Sciences)

These students were duly selected following proper procedures at CSIR-IICB.

After cross-checking all admission related documents maintained at CSIR-IICB for these students, the Deans of Biological and Chemical Sciences have approved their provisional enrollment for the January 2014 session. The enrollment for these students will be confirmed after their fulfilling all admission related formalities of AcSIR.

Request received from the Coordinator for consideration of the coursework taken by these students at CSIR-IICB prior to their provisional enrollment at AcSIR in January 2014, towards fulfillment of their credit requirements of AcSIR has also received approval of the concerned Deans and the Chairman, Senate.

The relevant documents are enclosed at **Annexure A-9(b)**.

c) **CSIR-NML**

AcSIR has received request from CSIR-NML for consideration of 4 Industry Sponsored candidates for Provisional admission to the August 2014 session of AcSIR. The concerned companies could not meet the AcSIR timeline for online admissions as they conduct a lengthy internal selection procedure of their own.

The request for provisional admission of the following candidates have received approval of the Chairman, Senate:

Mr. Arijit Das, Tata Steel

Mr. Dilip Makhija, Tata Steel

Mr. E. Zachariah Chacko, Tata Steel

Mr. AVP Acharyulu, JSW Steel Ltd.

Also, request has been received from the Coordinator, CSIR-NML with due approval of the Director, CSIR-NML and the Dean Engineering Sciences for provisional admission of the IMP 2012-14 batch who have completed their MTech in July 2014 for provisional admission to the AcSIR PhD program.

The enrollment of these Sponsored and IMP candidates will be formalized after their fulfilling all admission related formalities of AcSIR.

Relevant documents are enclosed at **Annexure A-9(c) & 9(d)**.

Item for Ratification

Item No. 8 Course Related

(a) Corrections in approval by 10th Senate

Inadvertently, the courses approved for Chemical Sciences at CSIR-AMPRI was incorrectly reported as courses for Engineering Sciences. The incorrect reporting has been rectified in the Minutes of the 10th meeting of the Senate and placed at **Annexure A-1**. The Senate is requested to take note of the same.

(b) Approval of course retrospectively

(i) CSIR-NML (Engineering)

The courses proposed by CSIR-NML in PhD in Engineering Sciences and for IMP program for the 10th meeting of Senate was inadvertently missed and was not reported for ratification by the Senate at the meeting. Retrospective ratification of the Senate is requested for the courses as operational from August 2013 session.

For August Semester:

S.No	Course Code	Course Title	Credits L-T-P-C
Basic Courses(M.Tech Level)			
1.	ENG(NML):1-836	Tools & techniques of materials characterization	3-0-2-4
2.	ENG(NML):1-837	Advance Metallurgical Thermodynamics	2-0-0-2
3.	ENG(NML):1-870	Kinetics of Metallurgical Processes	2-0-0-2
4.	ENG(NML):1-838	Introduction to Materials	2-0-0-2
5.	ENG(NML):2-858	Corrosion and Control	2-0-2-3
6.	ENG(NML):2-846	Mineral Processing-1	2-0-0-2
7.	ENG(NML):2-854	Mechanical Behavior of Materials	2-0-2-3
8.	ENG(NML):2-851	Principle of Physical Metallurgy	2-1-0-3
Advanced Courses (Ph.D Level)			
9.	ENG(NML):3-865	Advance Mechanical property characterization	3-0-2-4
10.	ENG(NML):4-867	Life Cycle Assessment	2-2-0-4
11.	ENG(NML):3-864	Coating Technology	3-0-2-4
12.	ENG(NML):2-852	Microstructural Engineering	2-1-2-4

For January Semester:

S.No	Course Code	Course Name	Credits L-T-P-C
Basic Courses(M.Tech Level)			
1.	ENG(NML)2-840	Advanced Iron Making	2-1-0-3
2.	ENG(NML)2-841	Advanced Steel Making	2-1-0-3
3.	ENG(NML)2-843	Non Ferrous Extract. Met	2-1-0-3
4.	ENG(NML)2-847	Mineral Processing II	2-1-0-3
5.	ENG(NML)2-871	Advanced Manufacturing	2-1-0-3
6.	ENG(NML)2-860	Waste Processing and Recycling	2-1-0-3
7.	ENG(NML)2-844	Transport Phenomenon of Metallurgical Processes	2-0-0-2
8.	ENG(NML)1-873	Advanced Materials	2-0-0-2
9.	ENG(NML)1-872	Science Management	2-0-0-2
10.	ENG(NML)1-839	Advanced Mathematics and Numerical Analysis	2-0-0-2
Advanced Courses (Ph.D Level)			
1.	ENG(NML)3-863	Structural Integrity & Assessment	2-2-0-4
2.	ENG(NML)3-866	Integrated Computational Materials Engineering	3-0-1-4
3.	ENG(NML)3-874	Advanced Mineralogy	2-2-0-4
4.	ENG(NML)2-853	Physical Metallurgy of Steel	3-1-0-4

(ii) CSIR-IHBT (Chemical)

Retrospective ratification of courses being offered at CSIR-IHBT since January 2011 session is requested from the Senate as these courses did not receive Senate's approval by oversight. Necessary approval from the Chairman, Senate has been received on recommendation of the concerned Dean.

Course No.	Title	L-T-P-C
CHE-IHBT-1-001	Research Methodology	2-0-0-2
CHE-IHBT-1-002	Analytical Chromatographic Techniques	1-0-0-1
CHE-IHBT-1-003	Organic Spectroscopy Techniques	1-0-0-1
CHE-IHBT-2-001	Advanced Organic Synthesis	1-0-0-1
CHE-IHBT-2-002	Advances in Oxidation and Reduction Reactions	1-0-0-1
CHE-IHBT-2-003	Advances in Natural Products: Traditional methods and Terpenoids	1-0-0-1
CHE-IHBT-2-004	Advances in Natural Products: Alkaloids and Polyphenols	1-0-0-1
CHE-IHBT-3-001	Green Chemistry	1-0-0-1
CHE-IHBT-3-002	Advances in Catalyst and Reagent Chemistry	1-0-0-1
CHE-IHBT-3-003	Advances in Natural Products: Extraction and Isolation Techniques	1-0-0-1
CHE-IHBT-3-004	NMR Spectroscopy and its Applications in Organic Chemistry	1-0-0-1
CHE-IHBT-4-001	Project Proposal Writing and Presentation	0-0-4-2
CHE-IHBT-4-002	Review Article on Research Area	0-0-4-2
CHE-IHBT-4-003	CSIR-800 Project Concerned with Societal/ Rural Issues	0-0-8-4

(iii) CSIR-IGIB (Biological)

Retrospective ratification of new courses being offered at CSIR-IGIB from January 2012 session and modifications for courses offered in 2013 sessions is sought from the Senate as these courses did not receive Senate's approval by oversight. Necessary retrospective approval from the Chairman, Senate has been received on recommendation of the concerned Dean.

Course No.	Title	L-T-P-C	Remarks
BIO-IGIB-3-283	Molecular and Cellular Mechanisms of Defense	2-0-0-2	New course from 2012
BIO-IGIB-3-284	Death or Immortality: the hard choice	2-0-0-2	New course from 2012
BIO-IGIB-2-279	Microbes and environment	2-0-0-2	Modification: course code
BIO-IGIB-2-280	Defence mechanism for inflammatory disease	2-0-0-2	Modification: course code
BIO-IGIB-2-281	Electronics for Biologists	1-0-3-2	Modification: course code
BIO-IGIB-3-285	Basic Matlab for Biologists	0-0-2-1	Modification: course code
BIO-IGIB-3-286	Formulating a research problem	0-1-0-1	Modification: course code
BIO-IGIB-3-287	Showcasing your science	0-0-2-1	Modification: course code
BIO-IGIB-3-288	Structural Biology: Structure, dynamics, and modelling of biological macromolecule	0-0-1-0.5	Modification: course code
BIO-IGIB-3-289	Frontier areas of research in biology	1-0-0-1	Modification: course code
BIO-IGIB-3-290	Imaging and image analysis	0-0-1-0.5	Modification: course code
BIO-4-401	Research proposal writing	0-1-1-2	Course Code & Credit Added
BIO-4-402	Research review	0-1-1-2	Course Code & Credit Added

The course details for CSIR-NML (Engineering), CSIR-IHBT (Chemical) and CSIR-IGIB (Biological) are placed at **Annexure A-10(a)**.

(c) Introduction of New Courses

A few laboratories have proposed new courses for introduction from the August 2014 session under the different faculties of study. All the proposed new courses have received approval of the concerned Deans and the Chairman, Senate. The new courses proposed by the laboratories are enclosed as **Annexure A-10(b)**.

• Biological Sciences

The proposed new courses under faculty of Biological Sciences by different laboratories are as under:

(i) CSIR-NCL (Biological)

Course No.	Title	L-T-P-C
Bio-NCL-3-355	Cell Signalling	3-0-0-3
Bio-NCL-3-356	Introduction to Protein Misfolding Diseases (Neurodegenerative diseases)	3-0-0-3
Bio-NCL-2-257	Cell Structure and Membrane Protein Dynamics	2-0-0-2

(ii) CSIR-IGIB (Biological)

Course No.	Title	L-T-P-C
BIO-IGIB-3-291	Critical Analysis of Scientific Literature	0-0-2-1
BIO-IGIB-3-292	Ayurgenomics	2-0-0-2
BIO-IGIB-3-293	Genes and networks	1-0-0-1
BIO-IGIB-3-294	Disease Mechanisms: Integration of Metabolic and Cellular Signaling	1-0-0-1

(iii) CSIR-IHBT (Biological)

Course No.	Title	L-T-P-C	Adoption of
BIO-IHBT-3-323	Plant Conservation and Reproductive Biology	1-0-0-1	BIO-NBRI-3-490
BIO-IHBT-3-324	Ethnobotany and Traditional Knowledge	1-0-0-1	BIO-NEIST-3-595

(iv) CSIR-CSMCRI (Biological)

Course No.	Title	L-T-P-C
BIO-CSMCRI-X-XXX	Remote Sensing and its Application on Biological sciences & Marine sciences	1-0-0-1

(v) CSIR-CDRI (Biological)

Course No.	Title	L-T-P-C
BIO-CDRI-2-137	Plant Taxonomy, biodiversity, conservation, ethnobotany and Pharmacognosy	2-0-0-2
BIO-CDRI-3-142	Plant secondary metabolites and their in vitro biosynthesis through plant tissue culture	2-0-0-2

(vi) CSIR-IITR (Biological)

Course No.	Title	L-T-P-C
BIO-IITR-3-429	Air Pollution and Environmental Impact Assessment	1-0-0-1

(vii) CSIR-NIIST (Biological)

Course No.	Title	L-T-P-C	Adoption of
BIO-NIIST -2-173	Significance of Food Preservation	1-0-0-1	CFTRI
BIO-NIIST -2-174	Thermal Processing of Foods	1-0-0-1	CFTRI
BIO-NIIST -2-181	Spices and Plantation Products	1-0-0-1	CFTRI
BIO-NIIST -3- 178	Prebiotics and Probiotics	1-0-0-1	CFTRI
BIO-NIIST -2- 012	Cell Biology and Cell Signalling	2-0-0-2	CDRI/IICB/IIIM
BIO-NIIST -3-002	Cancer Biology	2-0-0-2	CDRI/IICB/IIIM
BIO-NIIST-3- 391	Functional Foods and nutraceuticals	2-0-0-2	New Course
BIO-NIIST-3- 392	Chemistry of process induced food toxicants	1-0-0-1	New Course

(viii) CSIR-CFTRI (Biological)

Course No.	Type of course	Title	L-T-P-C
Level 100 (16 credits : All Compulsory)			
BIO-CFTRI-1101	Compulsory	Basic Nutrition	3-0-0-3
BIO-CFTRI-1102	Compulsory	Nutritional Biochemistry	3-0-2-4
BIO-CFTRI-1103	Compulsory	Maternal Nutrition / Infant Nutrition	3-0-0-3
BIO-CFTRI-1104	Compulsory	Public Health Nutrition	3-0-0-3
BIO-CFTRI-1105	Compulsory	Nutraceuticals and functional foods	3-0-0-3
Level 200 (18 credits: 3 Compulsory +2 Optional)			
BIO-CFTRI-2001	Compulsory	Clinical Nutrition	3-0-2-4
BIO-CFTRI-2002	Compulsory	Food Microbiology	3-0-2-4
BIO-CFTRI-2003	Compulsory	Cell Biology / Molecular cell / Tissue Biology	3-0-2-4
BIO-CFTRI-2004	Optional	Health, Food and Environment	3-0-0-3

BIO-CFTRI-2005	Optional	Dietetic Techniques and patient counselling	3-0-0-3
BIO-CFTRI-2006	Optional	Food Safety	3-0-0-3
BIO-CFTRI-2007	Optional	Convenience and wellness foods	3-0-0-3
BIO-CFTRI-2008	Optional	Human physiology	3-0-0-3
BIO-CFTRI-2009	Optional	Reproductive child health	3-0-0-3
BIO-CFTRI-2010	Optional	Food Immunology	3-0-0-3
BIO-CFTRI-2011	Optional	Sports Science and Nutrition	3-0-0-3
Level 300 (16 credits: 2 Compulsory + 3 Optional)			
BIO-CFTRI-3001	Compulsory	Nutritional Genomics/Metabolomics	3-0-2-4
BIO-CFTRI-3002	Compulsory	Research Methodology	3-0-0-3
BIO-CFTRI-3003	Optional	Food Biotechnology	3-0-0-3
BIO-CFTRI-3004	Optional	Human Genetics	3-0-0-3
BIO-CFTRI-3005	Optional	Metabolic /Genetic Basis of Diseases	3-0-0-3
BIO-CFTRI-3006	Optional	Hospital organization and Personnel/Nutrition management	3-0-0-3
BIO-CFTRI-3007	Optional	Human ethics	3-0-0-3
BIO-CFTRI-3008	Optional	Laboratory methods in Food and health sciences	3-0-0-3
BIO-CFTRI-3009	Optional	Pharmacology/Toxicology/genotoxicity	3-0-0-3
BIO-CFTRI-3010	Optional	Health Behavior and counselling	3-0-0-3
BIO-CFTRI-3011	Optional	National/International health organizations; their role	3-0-0-3
BIO-CFTRI-3012	Optional	Nutritional Psychology and its concepts	3-0-0-3
BIO-CFTRI-3013	Optional	Bioinstrumentation; Laboratory methods in health sciences	3-0-0-3
BIO-CFTRI-3014	Optional	Genetic Engineering	3-0-0-3
BIO-CFTRI-3015	Optional	Molecular dynamics/modelling	3-0-0-3
BIO-CFTRI-3016	Optional	Integrated approach for food and health	3-0-0-3
Level 400 (8 credits: All Compulsory)			
BIO-CFTRI-4001	Compulsory	Review of Literature in Ph.D. research area of targeted focus	0-1-1-2
BIO-CFTRI-4002	Compulsory	Preparation of Project Proposal in non-Ph.D. research area of targeted focus	0-1-1-2
BIO-CFTRI-4003	Compulsory	CSIR-800	0-2-2-4

• Chemical Sciences

(ix) CSIR-NIIST (Chemical)

Course No.	Title	L-T-P-C
CHE(NIIST) -3-067	Nanomaterials Science and Technology	2-0-0-2
CHE(NIIST)- 3-068	Ionic Conductors	2-0-0-2
CHEM-NIIST-3-069	Polymeric Hierarchical Structures and Properties	2-0-0-2

(x) CSIR-CRRI (Chemical)

Course Number	Course Name	L-T-P-C
CHE(CRRI)1-XXX #	Basics of Soil Mechanics	3-0-2-4
CHE(CRRI)2-XXX #	Atmospheric Chemistry	3-0-0-3
CHE(CRRI)3-XXX #	Optimization Techniques	3-1-0-4
CHE(CRRI)3-XXX #	Life cycle assessment applications in transport sector	3 -1-0-4
CHE(CRRI)3-XXX #	Durability of Concrete Structures	3-0-2-4
CHE(CRRI)3-XXX #	Air Quality & Dispersion Modelling	3-0-2-4
CHE(CRRI)3-XXX #	Advanced Self Study-I	0-2-4-4
CHE(CRRI)3-XXX #	Advanced Self Study II	0-2-4-4
CHE(CRRI)3-XXX #	Advanced Self Study III	0-2-4-4
CHE(CRRI)3-XXX #	Advanced Self Study IV	0-2-4-4
CHE(CRRI)4-001	Project Proposal Writing *	0-0-4-2
CHE(CRRI)4-002	Review Article Writing *	0-0-4-2
CHE(CRRI)4-003	CSIR 800 Project	0-0-8-4

*Course Code Modified

Course Numbers to be modified

• Engineering Sciences

(xi) CSIR-IICT (Engineering)

For the Integrated M.Tech - PhD program in Process Engineering Sciences

Course No.	Title	L-T-P-C
Eng(IICT):2-569	Software Applications in Chemical Engineering Problem Solving	2-2-0-4

(xii) CSIR-NCL (Engineering)

Course No.	Title	L-T-P-C
Eng(NCL):2-708	Advanced Mathematics	2-0-0-2
Eng(NCL):2-709	Advanced Numerical Methods	2-0-0-2
Eng(NCL):3-709	Environmental Pollution Control	3-0-0-3
Eng(NCL):3-710	Statistical Analysis	2-0-0-2
Eng(NCL):3-711	Advanced Algorithms	1-0-0-1
Eng(NCL):3-712	Advanced Reaction Engineering	2-0-0-2
Eng(NCL):3-713	Advanced Transport Phenomena	2-0-0-2
Eng(NCL):3-714	Advanced Thermodynamics	2-0-0-2
Eng(NCL):3-715	Advanced Topics in Bioengineering	2-0-0-2
Eng(NCL):3-716	Pharmokinetics for Chemical Engineers	2-0-0-2
Eng(NCL):3-717	Modeling of Drug Formulation Process	2-0-0-2

(xiii) CSIR-NIIST (Engineering)

For PhD program in Engineering Sciences

Course No.	Title	L-T-P-C
ENG(NIIST):3-780	Modeling for Casting and solidification processing	3-0-0-3
ENG(NIIST):3-781	Magnetic materials and their technological application	3-0-0-3
ENG(NIIST):3-782	Cryogenics, Vacuum technology and its process applications	3-0-0-3

(xiv) CSIR-CSIO (Engineering)

Course No.	Title	L-T-P-C
ENG(CSIO)-3-494	Embedded Systems	3-0-2-4

(xv) CSIR-CRRI (Engineering)

Course No.	Title	L-T-P-C
ENG(CRRI)1-469	Basics of Soil Mechanics	3-0-2-4
ENG(CRRI)1-470	Basics of Engineering Geology	3-0-0-3
ENG(CRRI)3-451	Optimization Techniques	3-1-0-4
ENG(CRRI)3-452	Planning for Sustainable Transport System	3-1-0-4
ENG(CRRI)3-453	Life cycle assessment applications in transport sector	3-1-0-4
ENG(CRRI)3-454	Durability of Concrete Structures	3-0-2-4
ENG(CRRI)3-455	Dynamics of Structures	3-1-0-4
ENG(CRRI)3-456	Transport Network Analysis	3-1-0-4
ENG(CRRI)3-457	Microstructure and mechanics of cement concrete	3-1-0-4

• Physical Sciences

(xvi) CSIR-NIIST (Physical)

Course No.	Title	L-T-P-C
PHY-NIIST- 3-546	Transport in nanosolids	3-0-0-3
PHY-NIIST- 3-547	Organic Electronics	3-0-0-3

(xvii) CSIO-CSIO (Physical)

Course No.	Title	L-T-P-C
PHY/ENG(CSIO)-4-002	Review Article	1-1-0-2
PHY(CSIO)-3-314	Nano-photonics	3-0-2-4

(xviii) **CSIR-CRRI (Physical)**

Course No.	Title	L-T-P-C
PHY(CRRI)1-XXX #	Basics of Soil Mechanics	3-0-2-4
PHY(CRRI)1- XXX #	Basics of Engineering Geology	3-0-0-3
PHY(CRRI)1- XXX #	Basics of Soil Mechanics	3-0-2-4
PHY(CRRI)1- XXX #	Basics of Engineering Geology	3-0-0-3

Course Numbers to be modified

(d) Modification of Courses

A few laboratories have proposed modifications in the existing approved courses under the different faculties of study. All the proposed modifications have received approval of the concerned Deans and the Chairman, Senate. The details of the proposed modifications are enclosed as **Annexure a-10(c)**.

• **Biological Sciences**

(i) **CSIR-IGIB (Biological)**

Course No.	Title	L-T-P-C	Remarks
BIO-IGIB-2-280	Molecular and Cellular Mechanisms of Defense	2-0-0-2	Title Change. Old title: Defence Mechanism for inflammatory disease
BIO-IGIB-2-006	From proteins to proteomes: Principles of Protein Structure, Function and Dynamics	2-0-0-2	Title Change. Old title: Protein Science & Proteomics

(ii) **CSIR-CSMCRI (Biological)**

Course No.	Title	L-T-P-C	Remarks
BIO-CSMCRI-2-010	Ecology and Environment	1-0-0-1	Old Course Title: 'Plant Environment Interaction' ; Modification in course content
BIO-CSMCRI- 1-002	Computation/bioinformatics	1-0-0-1	Modification in course content

(iii) CSIR-CDRI (Biological)

Course No.	Title	L-T-P-C	Remarks
BIO-CDRI-2-002	Biotechniques and Instrumentation	2-1-2-4	Previous L-T-P-C: 1-0-0-1
BIO-CDRI-3-002	Cancer Biology	2-0-0-2	Previous L-T-P-C: 1-0-0-1
BIO-CDRI-3-141	An Intro to Drug discovery & Development	2-0-0-3	Previous L-T-P-C: 1-0-0-1

• **Chemical Sciences**

(iv) CSIR-CSMCRI (Chemical) **

Course No.	Title	L-T-P-C	Remarks
CHE-CSMCRI-1-001	Research Methodology	2-0-0-2	Old Credit: 1-0-0-1
CHE-CSMCRI-1-002	Analytical Tools and Instrumentation	2-0-0-2	Old Credit: 1-0-0-1
CHE-CSMCRI-3-014	Asymmetric Synthesis	2-0-0-2	Old Credit: 1-0-0-1; Course content modification
CHE-CSMCRI-3-023	Homogeneous Catalysis	2-0-0-2	Old Credit: 1-0-0-1
CHE-CSMCRI-3-034	Electrochemical power sources	1-0-0-1	Old credit: 2-0-0-2

** Conditional approval by Dean, Chemical Sciences

(v) CSIR-IICT (Chemical)

Course No.	Title	L-T-P-C	Remarks
CHE-IICT-2-026	Green Chemistry	2-0-0-2	Previous L-T-P-C: 1-0-0-1

(vi) CSIR-CDRI (Chemical)

Course No.	Title	L-T-P-C	Remarks
CHE-CDRI-1-001	Research Methodology	1-0-2-2	Previous L-T-P-C: 1-0-0-1
CHE-CDRI-1-002	Analytical Tools and Instrumentation	2-1-2-4	Previous L-T-P-C: 1-0-0-1

• **Engineering Sciences**

(vii) CSIR-NML (Engineering)

Course No.	Title	L-T-P-C	Remarks
ENG(NML):1-837	Advance Metallurgical Thermodynamics	3-0-0-3	Credit change
ENG(NML):1-870	Kinetics of Metallurgical Processes	3-0-0-3	Credit change
ENG(NML):1-838	Introduction to Materials	3-0-0-3	Credit change
ENG(NML)1-839	Advanced Mathematics and Numerical Analysis	3-0-0-3	Credit change
ENG(NML):3-867	Life Cycle Assessment	2-2-0-4	Nomenclature change
ENG(NML)2-840	Advanced Iron Making	3-0-0-3	Credit change
ENG(NML)2-841	Advanced Steel Making	3-0-0-3	Credit change
ENG(NML)2-843	Non Ferrous Extract. Met	2-0-2-3	Credit change
ENG(NML)2-847	Mineral Processing	3-0-0-3	Credit change
ENG(NML)2-844	Transport Phenomenon of Metallurgical Processes	3-0-0-3	Credit change
ENG(NML)1-873	Advanced Materials	3-0-0-3	Credit change
ENG(NML)3-863	Structural Integrity & Assessment	2-2-0-4	Nomenclature change
ENG(NML)3-866	Integrated Computational Materials Engineering	3-1-0-4	Nomenclature change
ENG(NML)3-874	Advanced Mineralogy	3-0-2-4	Nomenclature change

(viii) CSIR-CEERI (Engineering)

For the PGRPE/IMP-2014, courses in each of the 3 areas offered by CSIR-CEERI, Pilani, Advanced Electronic Systems, Advanced Semiconductor Electronics and High Power Microwave Devices and System Engineering have been reviewed and realigned, credits adjusted, and split/merger of a few courses has been done based on students feedback. There are also some minor changes in course contents to align them with current knowledge and topics. The broad thrust, focus and framework of each area have not been changed.

Advanced Electronic Systems		
Semester-I		
Subject Code	Subject	L-T-P-C
ENG(CEERI): 2-208	Platforms and Techniques for Process	2-0-0-2
ENG(CEERI): 2-209	Digital Systems Engineering	2-0-0-2
ENG(CEERI): 2-210	Intelligent Instrumentation	2-0-0-2
ENG(CEERI): 2-212	Signal and Image Processing-I	2-0-0-2
ENG(CEERI): 2-213	Power Electronics	2-0-0-2
ENG(CEERI): 2-215	Lab: Process Control Applications	0-0-2-1

ENG(CEERI): 2-216	Lab: Digital Systems Engineering	0-0-2-1
ENG(CEERI): 2-217	Lab: Intelligent Instrumentation	0-0-2-1
ENG(CEERI): 2-219	Lab: Signal and Image Processing-I	0-0-2-1
ENG(CEERI): 2-220	Lab: Power Electronics	0-0-2-1
ENG(CEERI): 1-206	Technical Communication	2-0-0-2
Semester-II		
Subject Code	Subject	L-T-P-C
ENG(CEERI): 2-211	Real-time Embedded System Design	3-0-0-3
ENG(CEERI): 3-208	Advances in Process Control	2-0-0-2
ENG(CEERI): 3-209	Signal and Image Processing-II	2-0-0-2
ENG(CEERI): 3-210	Applications of Power Electronics	2-0-0-2
ENG(CEERI): 2-218	Lab: Real-time Embedded System Design	0-0-4-2
ENG(CEERI): 3-238	Lab: Advances in Process Control	0-0-2-1
ENG(CEERI): 3-239	Lab: Signal and Image Processing-II	0-0-2-1
ENG(CEERI): 3-240	Lab: Applications of Power Electronics	0-0-2-1
ENG(CEERI): 3-206	Project Management	2-0-0-2
Semester-III		
Subject Code	Subject	L-T-P-C
ENG(CEERI) : 2-223	CMOS Digital VLSI Design	3-0-0-3
ENG(CEERI) : 2-226	Lab: CMOS-based Physical Design	0-0-4-2
ENG(CEERI) : 2-098	MTech Dissertation-I	0-7-14-14
Semeste- IV		
Subject Code	Subject	L-T-P-C
ENG(CEERI) : 2-099	MTech Dissertation-II	0-9-18-18

Advanced Semiconductor Electronics		
Semester-I		
Subject Code	Subject	L-T-P-C
ENG(CEERI) : 2-221	Physics of Semiconductor Materials and Devices	4-0-0-4
ENG(CEERI) : 2-222	Unit Processes in Semiconductor Technologies	3-0-0-3
ENG(CEERI) : 2-223	CMOS Digital VLSI Design	3-0-0-3
ENG(CEERI) : 2-225	Lab: Semiconductor Processing Technologies	0-0-4-2
ENG (CEERI) : 2-226	Lab: CMOS-based Physical Design	0-0-4-2
ENG(CEERI) : 1-206	Technical Communications	2-0-0-2
Semester- II		
Subject Code	Subject	L-T-P-C
ENG(CEERI) : 2-224	Characterization Techniques for Semiconductor	3-0-0-3
ENG(CEERI) : 2-227	Lab: Semiconductors Related Characterization and	0-0-4-2
ENG(CEERI) : 3-211 /	Elective-I	0-0-4-2
ENG(CEERI) : 3-213	Elective-II	3-0-0-3
ENG(CEERI) : 3-221 /	Lab/Seminar: Elective-I Related	0-0-4-2
ENG(CEERI) : 3-223 /	Lab/Seminar: Elective-II Related	0-0-4-2
ENG(CEERI) : 2-206	Project Management	2-0-0-2
MEMS and Microsensors (Elective-I and Elective-II)		
Subject Code	Subject	L-T-P-C
ENG(CEERI) : 3-211	MEMS and Nano-structures Technologies	3-0-0-3
ENG(CEERI) : 3-212	Physics and Design of MEMS and Microsensors	3-0-0-3
ENG(CEERI) : 3-221	Lab: MEMS and Nano-structures Technologies	0-0-4-2
ENG(CEERI) : 3-222	Lab: Design of MEMS and Microsensors	0-0-4-2
Nanoelectronics (Elective-I and Elective-II)		
Subject Code	Subject	L-T-P-C
ENG(CEERI) : 3-211	MEMS and Nano-structures Technologies	3-0-0-3
ENG(CEERI) : 3-213	Nanoelectronic Devices and Technologies	3-0-0-3

ENG(CEERI) : 3-221	Lab: MEMS and Nano-structures Technologies	0-0-4-2
ENG(CEERI) : 3-223	Lab: Nanoelectronic Technologies	0-0-4-2
VLSI Design (Elective-I and Elective-II)		
Subject Code	Subject	L-T-P-C
ENG(CEERI) : 3-215	CMOS Analog Design	3-0-0-3
ENG(CEERI) : 3-216	Advanced VLSI System Architectures	3-0-0-3
ENG(CEERI) : 3-225	Lab: CMOS Analog Design	0-0-4-2
ENG(CEERI) : 2-228	Lab: HDL-based Digital Design	0-0-4-2
Optoelectronics and Photonics (Elective-I and Elective-II)		
Subject Code	Subject	L-T-P-C
ENG(CEERI) : 3-217	Optoelectronic Materials, Devices and	3-0-0-3
ENG(CEERI) : 3-218	Photonic Materials, Devices and Technologies	3-0-0-3
ENG(CEERI) : 3-226	Lab: Optoelectronic Devices and Technologies	0-0-4-2
ENG(CEERI) : 3-227	Lab: Photonic Devices and Technologies	0-0-4-2
Semester-III		
Subject Code	Subject	L-T-P-C
F.NG(C.F.F.RI) : 2-210	Intelligent Instrumentation	2-0-0-2
ENG(CEERI) : 2-217	Lab: Intelligent Instrumentation	0-0-2-1
ENG(CEERI) : 2-098	MTech Dissertation-I	0-7-14-14
Semester-IV		
Subject Code	Subject	L-T-P-C
ENG(CEERI) : 2-099	MTech Dissertation-II	0-9-18-18

High Power Microwave Devices and System Engineering		
Semester-I		
Subject Code	Subject	L-T-P-C
ENG(CEERI) : 2-231	Electromagnetic Theory and Transmission Lines	3-0-0-3
ENG(CEERI) : 2-232	Microwave Communication	2-0-0-2
ENG(CEERI) : 2-233	Numerical Analysis and Techniques for Microwave Applications	4-0-0-4
ENG(CEERI) : 3-234	High Power Microwave Systems and Applications	3-0-0-3
ENG(CEERI) : 2-235	Lab: Microwave Components Characterization and Tube Processing Techniques	0-0-4-2
ENG(CEERI) : 1-206	Technical Communication	2-0-0-2
Semester-I		
Subject Code	Subject	L-T-P-C
ENG(CEERI) : 2-234	Microwave and Millimeter Wave Tube Technologies	3-0-0-3
ENG(CEERI) : 3-231	Slow-wave Devices : Principles and Design	4-0-0-4
ENG(CEERI) : 3-232	Fast-wave Devices : Principles and Design	3-0-0-3
ENG(CEERI) : 2-236	Lab: Microwave Devices Characterization and Tube Sub-assembly Fabrication	0-0-4-2
ENG(CEERI) : 3-233	Lab: CAD of Microwave Tubes	0-0-4-2
ENG(CEERI) : 2-206	Project Management	2-0-0-2
Semester-III		
Subject Code	Subject	L-T-P-C
ENG(CEERI) : 3-23x	Elective-I	3-0-0-3
ENG(CEERI) : 2-098	MTech Dissertation-I	0-7-14-14

Elective-I		
Subject Code	Subject	L-T-P-C
ENG(CEERI) : 3-236	Plasma-filled Microwave Sources	2-0-0-2
ENG(CEERI) : 3-237	Vacuum Microelectronic Devices	2-0-0-2
Semester-IV		
Subject Code	Subject	L-T-P-C
ENG(CEERI) : 2-099	MTech Dissertation-II	0-9-18-18

(ix) CSIR-NCL (Engineering)

New Course No.	Title	L-T-P-C	Old Course No.
Eng(NCL):2-705	Reaction and Reactor Engineering	3-0-0-3	Eng(NCL):1-702
Eng(NCL):2-706	Transport phenomena	3-0-0-3	Eng(NCL):1-703
Eng(NCL):2-707	Thermodynamics and Statistical Mechanics	3-0-0-3	Eng(NCL):1-704
Eng(NCL):3-703	Multiscale simulations in materials	3-0-0-3	Eng(NCL):2-711
Eng(NCL):3-704	Industrial flow modeling	3-0-0-3	Eng(NCL):2-712
Eng(NCL):3-705	Data driven modeling	2-0-0-2	Eng(NCL):2-713
Eng(NCL):3-706	Non-linear Dynamics	2-0-0-2	Eng(NCL):2-714
Eng(NCL):3-707	Modeling of Biological Systems	3-0-0-3	Eng(NCL):2-715
Eng(NCL):3-708	Advanced separation processes	2-0-0-2	Eng(NCL):2-716

(x) CSIR-CSIO (Engineering)

Course No.	Title	L-T-P-C	Remarks
PHY/ENG(CSIO)-4-001	Project Proposal writing	1-1-0-2	Nomenclature/Credit Change
PHY/ENG(CSIO)-4-002	Article Review	1-1-0-2	Nomenclature/Credit Change
PHY/ENG(CSIO)-4-003	CSIR-800 Societal Program	0-0-8-4	Nomenclature change
PHY/ENG(CSIO)-1-311	Mathematics for Engineers and Scientists	3-0-0-3	Credit Change
ENG(CSIO)-1-486	Circuit Theory and Electronic Devices	3-0-0-3	Credit Change
ENG(CSIO)-1-487	Material Science and Engineering	3-0-0-3	Name/Credit change
ENG(CSIO)-2-486	Signal Processing	3-0-0-3	Credit Change
ENG(CSIO)-2-487	Computer Aided Design and Simulation	3-0-0-3	Credit Change

- **Physical Sciences**

- (xi) **CSIR-CSIO (Physical)**

No.	Course	Title	L-T-P-C	Remarks
	PHY/ENG(CSIO)-4-001	Project Proposal writing	1-1-0-2	Nomenclature/Credit Change
	PHY/ENG(CSIO)-4-003	CSIR-800 Societal Program	0-0-8-4	Course No. Change
	PHY/ENG(CSIO)-1-311	Mathematics for Engineers and Scientists	3-0-0-3	Credit change
	PHY(CSIO)-2-312	Optics and Opto-electronics	3-0-0-3	Credit change

- **Mathematical and Information Sciences**

- (xii) **CSIR-NISTADS (MIS)**

In the 10th meeting of the Senate, new courses of CSIR-NISTADS were approved. The credit distribution for the following course, which were approved by the Senate, was not included in the Senate document. The Senate is to take a note of the credit distribution of the following approved course of CSIR-NISTADS under the faculty of Mathematical and Information Sciences:

MIS-NISTADS-3-351 (Elective): Introduction to Public Health Policy: 1-0-0-1

Item for Information

Item No. 9 Student Related Items

(a) Transfer of students

(i) CSIR-CDRI to CSIR-IICT

The supervisor of the following students of CSIR-CDRI have applied for transfer of laboratory for two of his students due to his transfer from CSIR-CDRI to CSIR-IICT:

Student Name: **Mr. Pochampalli Sathyanarayana, UGC-JRF**

Session: August 2012

Old Enrollment No.: 10CC12A04039 (at CDRI)

Advisor: Dr. Bathula Surendar Reddy

Student Name: **Mr. OWK Ravi, CSIR-JRF**

Session: August 2013

Old Enrollment No.: 10CC13A04025 (at CDRI)

Advisor: Dr. Bathula Surendar Reddy

Members may kindly take a note of the transfer of students. Necessary approvals are enclosed as **Annexure A-11 (a)**.

(ii) CSIR-IHBT to CSIR-CDRI

The following students of CSIR-IHBT has sought transfer from CSIR-IHBT to CSIR-Lucknow since their thesis supervisor, Dr. AK Sinha has been transferred to CSIR-CDRI, Lucknow. The transfers have been approved by the Lab director, the concerned Dean of faculty and the Chairman, Senate.

Student Name: **Aditya Lavekar** (10CC12J33010)

Student Name: **Saima Malik** (10CC11A33012)

Members may kindly take a note of the transfer of students. Necessary approvals are enclosed as **Annexure A-11 (b)**.

(b) Change of Faculty of study by students

The following requests have been received from different laboratories for change of faculty of study for the following students:

Student Name	Lab Name	Old Enrollment No.	New Enrollment No.
S Jayashree			
10CC13A05007	CSIR-CECRI	Chem. Sciences	Phy. Sciences
Asheesh Kumar			
20EE13J26043	CSIR-NCL	Engg. Sciences	Chem. Sciences
Hemalatha Kilari			
10CC14J18022	CSIR-IICT	Chem. Sciences	Engg. Sciences
Nikhil Gauravarapu Navlur			
10BB12A18063	CSIR-IICT	Biol. Sciences	Engg. Sciences
Shveta Mahajan			
CSIR-CSIO	10PP11A15001	Phy. Sciences	Engg. Sciences

Relevant documents are enclosed at **Annexure A-12**.

(c) Waiver of minimum residency

(i) Ms. Deepti Mishra and Ms. Shruti Agarkar of CSIR-NCL for submission of PhD thesis

As per the decision of the 10th Senate, the Dean of Chemical Sciences formed a committee having Prof. Kunal Ray, Associate Director, Dr. Shantanu Sengupta, Associate Dean Biology and Dr. G. Suresh, Coordinator, CSIR-NCL to review the request received seeking permission for thesis submission before completion of minimum residency period for two students of CSIR-NCL, **Ms. Deepti Mishra** (10CC13J26026) and **Ms. Shruti Agarkar**. (10CC12A26019).

The Committee reviewed the requests received. Owing to the fact that these students have been at CSIR-NCL for a considerable time prior to their enrollment in the PhD program of AcSIR, having several publications to their credit and on the recommendation of their thesis guides, the Committee recommended early submission of thesis before completion of minimum residency. The Chairman, Senate has approved the same on recommendation of the Committee.

Relevant documents are enclosed at **Annexure A-13(a)**.

(ii) **Mr. Krishna Nimesh, Trainee Scientist (APST) at CSIR-IIP for submission of MTech thesis**

Mr. Krishna Nimesh of the IMP 2012-14 batch is a Trainee Scientist in CSIR-IIP who is pursuing MTech degree in Advanced Petroleum Science and Technology at CSIR-IIP. Before the final submission and oral defense of his MTech thesis, he has been selected in BPCL as a Management Trainee and his request for extension of his joining date has not been granted by BPCL.

As per recommendation of the Director, CSIR-IIP, the Acting Director, AcSIR has approved his request for condonation of residency period at CSIR-IIP. Mr. Krishna Nimesh has submitted his thesis in time and also appeared for Viva as per approval of the Chairman, Senate.

Relevant documents are enclosed at **Annexure A-13(b)**.

Items for Information

Item No. 10 **Constitution of the Finance Committee of AcSIR**

With the formalization of the Statutes of AcSIR by the Board of Governors at its Fourth Meeting held on December 5, 2013, formation of the Finance Committee of AcSIR was required. The Chairman, BoG approved the constitution of the Finance Committee of AcSIR on May 26, 2014.

The approval of the Chairman, BoG and the Office Memorandum issued on the subject is placed at **Annexure A-14** for information of the Senate.

Item No. 11 **HRD Recognition of AcSIR**

Many countries, especially in the Middle East, require HRD, MEA and Embassy or Consulate Attestation of certificates for an employment Visa. Students passing out from AcSIR who would want to take up further studies or employment in such countries would also require to get their certificates issued by AcSIR attested. The certificates should be first authenticated from that respective state HRD Department from where the certificate has been issued.

AcSIR, having its Headquarters located at Chennai, approached the HRD of the state of Tamil Nadu for recognition and has been duly recognized. The Senate is being updated on the status of the recognition for future requirements of students.

Item No. 12 **Updates on Faculty Status of AcSIR**

The Senate in its eighth meeting of August 2, 2013 approved the 'Faculty Guidelines of AcSIR'. The collated list of faculty drawn from the CSIR system as per the 'Faculty Guidelines of AcSIR' were placed and approved in the 9th meeting of the Senate.

AcSIR receives requests for new inclusions/modification of faculty status/updates on superannuation and resignation on a regular basis. All such inclusions/modifications/deletions received from the different labs duly approved by the Chairman, Senate as authorized at the 9th meeting of the Senate is placed at **Annexure A-15** for information of the Senate.

Item for Discussion & Approval

Item No. 13 **Provisional Admission related issue at CSIR-IICT for Joshi Prabhakar Ramchandra and Srivalli Susmitha Ghatti**

Background: Joshi Prabhakar Ramchandra and Srivalli Susmitha Ghatti had taken admission at CSIR-IICT through interviews conducted by the laboratory for their regular call for PhD admission Programs in January 2013 and August 2013 sessions, respectively.

Due to some confusion the students had assumed that they were enrolled at AcSIR for PhD program. CSIR-IICT has also been deducting tuition fee of AcSIR from the students though they have not submitted on-line application to AcSIR for admission to PhD program in Chemical Sciences.

A request has been received from the Coordinator, CSIR-IICT to approve provisional enrolment of the two students for AcSIR PhD Program in Chemical Science. The enrollment of these 2 students will be formalized after their fulfilling all admission related formalities of AcSIR. The Dean, Chemical Sciences has referred the case to the Senate for a decision owing to the serious nature of the error.

Proposal: Decision of the Senate is requested. The relevant documents are enclosed at **Annexure A-16**.

Items for Discussion & Approval

Item No. 14 Thesis submission and Award of Degree related issue

(a) Mr. Ashok Vardhan Konala of CSIR-IICT

Background: Mr. Ashok Vardhan Konala of CSIR-IICT (Registration No. 10CC11J18081) had submitted his thesis under the guidance of Dr. Nitin Patil of CSIR-IICT (later transferred to CSIR-NCL), having the title recorded at AcSIR as “Gold(I)/Iodine Mediated Synthesis of 1-Naphthyl Ketones and Fused Isoquinolines”.

At his viva voce examination, the thesis title was modified to include “Indoles” and the title appeared as “Gold(I)/Iodine Mediated Synthesis of 1-Naphthyl Ketones, Indoles and Fused Isoquinolines”. When the discrepancy was brought to the attention of Coordinator, CSIR-IICT by the AcSIR Coordination Office, it was informed that the student wanted to have the thesis title modified as mentioned above and sent an application to the Dean, Chemical Sciences. The Dean approved the request.

The Senate is requested to take a note of the above and approve the change of title of thesis of Mr. Ashok Vardhan Konala so that he may be awarded his degree at the forthcoming Convocation of AcSIR. Relevant documents are placed at **Annexure A-17(a)** for records.

Proposal: In view of the above, the following **procedure for title change of thesis is being proposed for approval of the Senate:**

- (i) Title of PhD Thesis should be finalized by the time the students appears for the Comprehensive examination
- (ii) Any subsequent change in thesis title must be reported through the DAC Committee Meeting
- (iii) The Final change of thesis title will be allowed at the DAC IV (Open Colloquium) of a student and should receive due approval of the Dean
- (iv) Beyond the DAC IV, any request for change in title will not be entertained.

Approval of the Senate is requested on the above proposal.

(b) Mr. Kota Ramanjaneyulu of CSIR-IICT

Background: Mr. Kota Ramanjaneyulu of CSIR-IICT (Registration No. 10CC11J18034) has completed more than 4 years in research at IICT under the supervision of Dr. Pratyay Basak and has completed his coursework and his Synopsis is ready for submission for the PhD program of AcSIR.

Mr. Ramanjaneyulu has been selected and joined as a Lecturer in a Poly-Technique under Govt. of Andhra Pradesh. His progress has been closely monitored by the DAC and he has been recommended his pre-submission viva with approval of the Director, CSIR-IICT.

Proposal: Since the student has completed all his academic requirements, the Dean has accorded his approval on the same, approval of the Senate is requested on this case for submission of PhD thesis and use it as a reference to accord approval for similar cases in future.

Relevant documents are placed at **Annexure A-17(b)** for records.

Item No. 15 In principle permission to take up Monbukagakusho Scholarship by Ms. Rishemjit Kaur at CSIR-CSIO

Background: Ms. Rishemjit Kaur (Enrolment no. 32EE12J15006) at CSIR-CSIO of the January 2012 Session in Integrated MTech & PhD program, has been selected for the prestigious Monbukagakusho Scholarship (Japanese Government Scholarship) for a period of 1.5 years starting from October, 2014 till March, 2016, to pursue research under the aforementioned scholarship in Japan. Ms. Reshamjit Kaur has completed all her credit requirements and will complete her Comprehensive Examination before availing the leave. The request has been duly approved by the Director, CSIR-CSIO for consideration of the Senate, AcSIR.

Proposal: The details are being placed at **Annexure A-18** for necessary approval of the Senate.

**Item No. 16 Application for leave of absence of Mr. Tariq Zyed, a
Trainee Scientist at CSIR-CRRI**

Background: Mr. Tariq Zyed of CSIR-CRRI (Enrollment No. 30EE13A14006), Trainee Scientist of Transportation Engineering program of IMP batch 2013, joined in 2013 and has completed two semesters of his MTech program. After completion of his two semesters of the MTech program, he has got a permanent position through Uttarakhand Public Service Commission. Mr. Zyed has resigned from his Trainee Scientist position to join his position.

A request has been received from Mr. Zyed for an academic leave of one year from 30.05.2014 to 29.05.2015 when he wishes to re-join the MTech program to complete the course. The application has been duly forwarded by the Director, CSIR-CRRI for consideration of the Senate.

As per the AcSIR Ordinance No. 4, the Minimum residence for completion of MTech Degree is 4 semesters. Also, there is no provision in AcSIR for 'part-time' studentship, where the student is not affiliated to any CSIR laboratory or is not being sponsored by any other organization as a Sponsored Candidate.

Proposal: The Senate is to consider the request for the academic leave of absence from Mr. Tariq Zyed, who may re-join the program one year later with a leave from his serving organization and complete the rest of the MTech program from CSIR-CRRI.

Relevant documents are placed at **Annexure A-19**.

Items for Discussion & Approval

Item No. 17 Faculty Related Issues: Recognition of Scientists having specific qualification/holding a position at CSIR institutes

i) CSIR Staff having MV.Sc qualification

Background: CSIR-IITR has made a request for inclusion of Veterinarians as possible faculty under AcSIR. Biology based Institutes/Labs. of CSIR can utilize the services of qualified Veterinarians for teaching different modules of animal based course-work.

As per the approved Faculty Guidelines of AcSIR, 'Essential Requirement' under 'Eligibility Criteria to be an AcSIR Faculty' for CSIR Staff (Gr. IV and III), is:

- i) ME/M.Tech in Engg./Ph.D/MD or recognized equivalent degree;
- ii) Should teach in at least one coursework in 4 semesters and/or guide PG or Doctoral students

Proposal: Since the 'Essential Requirement' includes inter-alia 'ME/MTech in Engg./MD', it is proposed that AcSIR may treat MV.Sc qualification at par under 'recognized equivalent degree'. CSIR considers MD/MS/MDS/MV.Sc at par (reference terms and conditions of the offer for Senior Research Associateship – Scientists' Pool Scheme). This induction/recognition will help in utilizing the services of qualified Veterinarians.

ii) Senior Research Associate (CSIR Scientists Pool Scheme)

Background: CSIR-OSDD has recommended the name of Dr. Swati Subodh, Senior Research Associate (CSIR Scientists Pool Scheme) for consideration for recognition as an 'Assistant or Associate Professor' of AcSIR.

As per Clause 4 of the Faculty Guidelines of AcSIR, qualification required by Ramanujan/ Ramalingaswami/ INSPIRE or other equivalent Fellows to be considered as an AcSIR Faculty, states as under:

- Must have a PhD/MD or recognized equivalent degree;
- Must have at least one published paper in SCI or equivalently indexed journal as a corresponding author or at least two such publications as first author.

Proposal: As the qualification for CSIR Senior Research Associate (CSIR Scientists Pool Scheme) is PhD followed by two years of research/teaching experience, which is at par as required for Fellows being considered for faculty position at AcSIR. However, the Fellowships allowed so far are highly competitive. Therefore, it is being proposed that the Senate deliberate on the issue and

consider inclusion of Senior Research Associate, if appropriate, as 'Assistant Professor/Associate Professor' as per the provisions contained under the Eligibility Criteria to be an AcSIR Faculty.

iii) **Status of Faculty as a Guide after superannuation**

Background: Requests have been received for continuation as AcSIR Faculty status after superannuation for the following CSIR scientists:

- a) Prof. JS Yadav, Former Director and Bhatnagar Fellow at CSIR-IICT
- b) Prof. P. Ghosh, former Director of CSIR-CSMCRI

Both the above mentioned faculty have superannuated from CSIR. However, as per Statutes 12 of AcSIR, they may be considered as "Emeritus Professor" of AcSIR. As per clause 5(v) of the Faculty Guidelines of AcSIR, Emeritus Professors of AcSIR can act as independent guides for AcSIR PhD students.

Proposal: It is proposed that the Senate might advise on taking regular CSIR scientists as co-guides for such students with Emeritus Professors to cope with any contingency that may arise.

The Senate is requested to take note of the above and accord approval accordingly.

iv) **Adjunct Faculty**

Background: AcSIR has received requests from CSIR-NAL and CSIR-SERC (for its program in Renewable Energy) for inclusion of the following two faculty as Adjunct Faculty of AcSIR. As per the guidelines of AcSIR, an Adjunct Faculty of AcSIR will spend substantial time for the activities of the Academy in terms of teaching, supervising Master's thesis, guiding PhD scholars, development of curricula etc. or any other work that the Institute he/she is associated with, deem fit.

- a) **Dr. Amitabh Saraf** (Scientist G, ADA, Bangalore) to be associated with CSIR-NAL as an Adjunct Professor and
- b) **Prof. Srinivas Reddy** (IIT Madras) to be associated with Renewable Energy program of CSIR-SERC as an Adjunct Professor for 5 years.

Proposal: Approval of the Senate is sought for approval of the Adjunct Faculty positions. Relevant documents are placed at **Annexure A-20**.

Items for Discussion & Approval

Item No. 18 **Draft MoA between AcSIR and The L. V. Prasad Eye Institute, Hyderabad, through its research arm the Hyderabad Eye Research Foundation (HERF)**

Background: A preliminary proposal was received by AcSIR from highly reputed Hyderabad Eye Research Foundation (HERF) of LV Prasad Eye Institute (LVPEI), Hyderabad requesting to be associated with the Academy in its academic programs as an associate centre. The Senate in its 7th meeting held on April 5, 2013 accorded in-principle approval for this association.

Later, as suggested by the Acting Director, Prof. Kunal Ray, Prof. Amitabha Chattopadhyay and Dr. Shantanu Sengupta went for a site visit to LVPEI on 30th May 2013, was impressed by its academic programs and the facilities. It was also revealed that the institution would be an ideal place to carry out some of the CSIR-800 project work for the AcSIR students. The discussions were fruitful and it was decided that CSIR Labs and LVPEI should explore possibilities of collaboration with special emphasis for trans-disciplinary research.

Recently on 25th July 2014, a few scientists of CSIR Labs along with Prof. Kunal Ray visited LVPEI for presentation and discussion on collaboration on research projects and start PhD program at LVPEI based on a Memorandum of Agreement. Thus, an agreement has been drafted, similar to one between AcSIR and PHFI, and it has been checked for accuracy from legal expert as well.

Proposal: The Senate is requested to examine and approve, as appropriate, the MoA between LVPEI-HERF and AcSIR. Once approved by the Senate it would be placed to the BoG, AcSIR for final approval of the MoA for initiating the joint programs.

The draft MoA is placed at **Annexure A-21**.

Items for Discussion & Approval

Item No. 19 **Report of the Senate Committee for adoption of ‘Online Courses’ at AcSIR**

Background: In the 7th meeting of the Senate held on August 2, 2013 a proposal was discussed about earning credit through the online courses available on the portal, COURSERA and other equivalent courses. The Course Committee of AcSIR has circulated the details among all Coordinators of different laboratories to propose a basket of such online courses which would be relevant for the different laboratories. The Course Committee will work with the Coordinators determining the logistics of conducting such courses at the different laboratories. The final basket of courses will be submitted to the Senate for approval before implementation of the same at the different laboratories. The course committee recommended the following which is being placed at **Annexure A-22**:

- **Determining equivalent credits for AcSIR**
- **Adding of MOOC / online courses website to “approved” list**
- **Monitoring the progress of AcSIR student**
- **Payment for online course**
- **Alternate AcSIR framework for online courses**

Proposal: The Senate is requested to deliberate on the recommendations put forward by the Course Committee and finalize the recommendation.

Item for Discussion & Approval

Item No. 20 Recommendation of Senate Committee on Dual Faculty position

Background: At the 10th meeting of the Senate, a small Senate Committee was formed to propose guidelines for consideration of 'Dual Faculty positions' at AcSIR, having the following members:

Prof. SK Bhattacharya (CSIR-CBRI), Chairman
Prof. Amitava Sengupta (CSIR-NPL)
Dr. Vinod Scaria (CSIR-IGIB)
Prof. Rakesh Mohan Jha (CSIR-NPL)
Prof. Raj Singh (CSIR-CEERI)
Prof. Kunal Ray (AcSIR)

Proposal: The Chairman of the Committee has submitted a report outlining the criteria to be followed for recognition of a dual faculty position in AcSIR. The Senate is requested to accord its approval on the same so that guidelines may be adopted at AcSIR.

Relevant documents are placed at **Annexure A-23** for consideration of the Senate.

Item for Discussion & Approval

Item No. 21 **Issues related to GATE-JRF fellowships admissible per laboratory**

Background: AcSIR's IMP provides a ready platform for the objectives envisaged under the CSIR-GATE-JRF scheme. It also provides MTech-PhD route within CSIR labs for engineering graduates. However, it has been noticed that laboratories receive far more applications from students having GATE-JRF fellowship than from students having NET-JRF fellowship. It is now felt that the JRF-GATE scheme of CSIR-HRDG to provide 2 fellowships/year to each laboratory is not sufficient for the laboratories to meet their student requirements.

A proposal has been sent by Prof. Raj Singh of CSIR-CEERI to Head-HRDG to review the issues related to the scheme as:

- i) allocate GATE-JRF positions on 'per AcSIR program basis' rather than on present allocations made to various engineering-oriented CSIR labs, or
- ii) limit CSIR-GATE-JRF to first 2 years and encourage such fellowship holders to take CSIR-NET-Engineering and migrate to that after their MTech for PhD, or
- iii) reduce the CSIR-GATE-JRF amount to Rs. 8,000 per month which is what MHRD provides as support for MTech students at IITs/IISc/NITs.

Response have been received from Head, CSIR-HRDG which is placed at **Annexure A-24** for review of the Senate.

Proposal: Discussion is invited from the Senate on the issue so that the problem of fellowships for IMP students faced by the laboratories may be solved. The recommendations can be forwarded to the Head, CSIR-HRDG for review and decision.

Item for Discussion & Approval

Item No. 22 Provision for sanction of Hiatus/Break Period for AcSIR-PhD students

Background: A proposal has been received from Prof. Raj Singh of CSIR-CEERI regarding provisions for having a hiatus period for students during the PhD duration with the following proposed conditions:

- i) AcSIR may consider allowing a hiatus period during the PhD duration (normally not to exceed 3 months) for exceptional / justified reasons. This could also be due to medical reasons or family-related reasons. The hiatus period will be a single discrete unit of 3 months
- ii) The request for hiatus period will not be accepted during the first year of enrollment in PhD.
- iii) The hiatus period case will need to be forwarded by AcSIR coordinator with endorsement from the Lab Director to the concerned Dean for his recommendation to the Senate Chairman for approval of the proposal. It should be finally ratified by the Senate.
- iv) This period of break will not be counted towards "residency" period and the AcSIR limit of maximum residency period will hold. This means that if AcSIR minimum residency period before submitting PhD is say 3 years and maximum allowed period for PhD is 5 years, the hiatus period of 3 months will not be counted as "residency" (and candidate cannot submit his PhD before 3.5 years from start of PhD enrollment). So, the candidate will now have a buffer of only 1.5 years between minimum and maximum periods. The penalty of additional 3 months in adjusting the hiatus period against "residency" will possibly act as a deterrent against "casual" cases.
- v) The candidate needs to pay PhD tuition fee during the hiatus period of 3 months to maintain continuation of PhD registration.
- vi) If the candidate fails to re-join the full-time PhD program after the hiatus period of 3 months is over, then the AcSIR-PhD registration will be cancelled.
- vii) In very exceptional cases, the total maximum hiatus period may be allowed as 2 chunks of 3 months each - no further extension to this would be allowed. The constraint of "hard" boundary of maximum allowable period will not shift and the hiatus period will reduce the buffer between minimum and maximum residency by 6 months.

This proposal will also be helpful for the MTech students during their transition from MTech to Ph.D due to late-start of their fellowships.

AcSIR Ordinances (*Clause 5.1.1*) allows the students of AcSIR "long leaves affecting coursework or suspension of fellowship, need to be reported to AcSIR

office through the Coordinator of the respective laboratory. A suitable entry should be made in the database for students for proper calculation of the period of residency.”

AcSIR Ordinances (*Clause 5.1.2*) states “The Senate of the Academy shall be empowered to prescribe any specific fees and also a period over which such fees shall remain valid, if so desired, for such enrolled/registered graduates.”

Proposal: The Senate is requested to deliberate on the proposal and approve the same.

Item for Discussion & Approval

Item No. 23 **Continuation of Ph.D as Part time candidate for submission of thesis after completion all the pre-Ph.D Courses, research requirement for the degree and the minimum residency period**

Background: A proposal has been received from Prof. Ajay Dhar of CSIR-NPL on the issue of allowing “part-time” PhD for students who have completed their minimum residency requirement for completion of their degree. Many of the PhD Students get a job offer before completion of their PhD. Since AcSIR do not have the provision for continuing a program as a “part-time” student, these students have no option but to leave the program before completion.

In the interest of AcSIR PhD Students, the Academy could allow them to continue in their program after minimum 3 years of residency period, so that they could take up jobs while continuing their PhD. This practice is followed by all the central universities in India.

Proposal: In view of the above, it is being proposed that AcSIR may modify the existing rules as follows by obtaining proper approval from the competent authority of AcSIR. A student registered under AcSIR would be allowed to retain registration on moving until submission of his/her thesis provided he/she satisfies the following conditions:

- (1) He/She has completed minimum 3 years of residency period after the date of enrollment and at least 1 year of residency period after date of final registration.
- (2) He/She has obtained the minimum number of required credits by clearing the PhD Courses including CSIR 800.
- (3) He/She has successfully passed the comprehensive examination.
- (4) He/She would continue to pay the tuition fees, till submission of the thesis.
- (5) He/She should submit the thesis within the maximum stipulated period as per AcSIR rules.

As per the current status of approval by the Senate, such students may exit the program through the “MS by Research’ route. However, the “MS by Research” route is yet to be implemented at AcSIR. Under such a situation, where quite a few students have had to leave the program, the Senate is requested to recommend the above proposal to be considered by the Board of Governors in the interest of the students, and modify relevant clause in Ordinance of AcSIR as appropriate.

Items for Discussion & Approval

Item No. 24 **Issues related to the AcSIR-PhD program in the field of Computational Biology at CSIR-NISCAIR**

Background: On the basis of a complaint received about the AcSIR PhD program being conducted in the field of 'Computational Biology' at CSIR-NISCAIR, a Committee was formed by the Acting Director, AcSIR to look into the basis of the complaint. The Committee has submitted its report to the Acting Director, AcSIR. Since the report is confidential this is not being included in the annexures.

The Acting Director, AcSIR will brief the Senate about the recommendations of the Committee. The Chairman of the committee will be present to explain in details any queries from the august members of the Senate for its deliberation and decision.

Proposal: The opinion of the Senate is sought about the future of the programs being offered at CSIR-NISCAIR.

Item No. 25 **Modification in Convocation Protocol**

Background: As per the protocol followed at AcSIR, the graduating students are given away silk stoles with AcSIR logo imprinted on it which they wear during the Convocation. However, since the number of students graduating each year is steadily increasing, it is becoming difficult to arrange for the considerable number of silk stoles every year.

Proposal: It is being proposed that the stoles are given to the student only for the purpose of use during the Convocation and taken back for safe-keep by the Headquarters and re-used at the next Convocation.

Approval of the Senate is requested on the proposal.

Items for Discussion & Approval

Item No. 26 Evaluation procedure for the Faculty of AcSIR, as per the suggestions of the Board

Background: The Board of Governors of AcSIR at its Fifth meeting held on March 24, 2014 emphasized on introduction of 'evaluation' for the faculty of AcSIR to assess the quality of teachers. It was proposed to look into the possibility for introduction of "360°Evaluation" of the faculty of AcSIR. It was suggested that a proforma should be designed for carrying out the evaluation process.

Proposal: The Senate is requested to deliberate on the proposal and propose an evaluation method for the faculty of AcSIR as per the recommendation of the Board of Governors.