No.: CSE/357   Dated: 3-9-14

MINUTES OF MEETING

Minutes of 2nd meeting of Board of Studies of Computer Science and Engineering department held on 03.09.2014 at 11:00 am in the college committee room.

The following persons were present:

1. Dr. Parminder Singh, Associate Professor & Head, Department of Computer Science and Engineering, GNDEC, Ludhiana (Chairman)
2. Er. Amanpreet Singh Brar, Associate Professor, Department of Computer Science and Engineering, GNDEC, Ludhiana (Member)
3. Er. Sumeet Kaur Sehra, Assistant Professor, Department of Computer Science and Engineering, GNDEC, Ludhiana (Member)
4. Er. Vivek Thapar, Assistant Professor, Department of Computer Science and Engineering, GNDEC, Ludhiana (Member)
5. Dr. Gurpreet Singh Lehal, Professor, Department of Computer Science, Punjabi University, Patiala (Member)
6. Dr. Sukhwinder Singh, Professor, UIET, Punjab University Chandigarh (Member)
7. Dr. Paramjit Singh, Assistant Professor, Giani Zail Singh Punjab Technical University Campus, Bathinda (Member)

The meeting started with welcome address by chairman BOS, and the already circulated agenda was put up for discussion. Following decisions were taken unanimously:

Proceedings:

Agenda Item 1

Apprising the Board of Studies about adopted Outcome Based Education (OBE) Model and discussion on attainment of Program Educational Objectives (PEO's) through Program Outcomes and in turn through courses.

The Following items are approved:

Vision of Department:

To generate competent professionals to become part of the industry and research organizations at the national and international levels

Mission of Department:

Dr. Parminder Singh   Er. Vivek Thapar   Dr. Paramjit Singh

Er. Amanpreet Singh Brar   Dr. Gurpreet Singh Lehal

Er. Sumeet Kaur Sehra   Dr. Sukhwinder Singh

a) Providing a strong theoretical and practical background across the computer science discipline with an emphasis on software development.

b) Imparting the skills necessary to continue education to grow professional.

c) Empowering the youth in rural communities with computer education.

d) Inculcating professional behavior, strong ethical values, innovative research capabilities and leadership abilities.

Program Education Objectives (PEO's) of M.Tech. (Computer Science and Engineering):

1. Practice with an expertise in academics, entrepreneurship, design and development in computing technology, or research in a specialized area of computer science and Engineering to pursue higher studies.

2. Exhibit analytical, decision-making and problem solving skills by applying research principles for handling real-life problems with realistic constraints.

3. Ability to communicate the findings or express innovative ideas in an effective manner with an awareness of professional, social and ethical responsibilities.

Program Outcomes (PO's) of M.Tech. (Computer Science and Engineering):

a) Apply knowledge of recent computing technologies, skills and current tools of computer science and engineering.

b) Ability to design and conduct experiments, as well as to analyze and interpret data.

c) Knowledge of contemporary research issues in the different areas of computer science & engineering.

d) Ability to explore research gaps, analyze and carry out research in the specialized/emerging areas.

e) Design software systems, components, or processes to meet identified needs within economic, environmental and social constraints.

f) Ability to express/present ideas in an impressive and professional manner.

g) Recognize the need to engage in lifelong learning through continuing education and research.

h) Ability to work in multi-disciplinary and multi-cultural environment.

i) Ability to become entrepreneur based upon societal needs.

j) An understanding of professional, social and ethical responsibilities.

Agenda Item 2

To discuss and finalize the Curriculum Design Process

Approved

| Dr. Parminder Singh | Er. Vivek Thapar | Dr. Paramjit Singh |
| Er. Amanpreet Singh Brar | Dr. Gurpreet Singh Lehal | |
| Er. Sumeet Kaur Sehra | Dr. Sukhwinder Singh | |

Agenda Item 3

3.1 Finalizing the new scheme for M.Tech. Computer Science and Engineering

The Following Scheme for M.Tech Computer Science and Engineering is approved

Sr. No.	Subject Code	Course Title	Type	L-T-P	Credits
M.Tech. (Full-Time) Computer Science & Engineering Course Scheme					
Semester 1st					
1	MTCS501	Software Engineering Methodologies	Core	4-0-0	4
2	MTCS502	Databases and Data Mining	Core	4-0-0	4
3	MTCS503	Advanced Data Structures	Core	4-0-0	4
4	MTCS6xx	Programme Elective – I	Programme Elective	3-0-0	3
5	MTCS6xx	Programme Elective – II	Programme Elective	3-0-0	3
6	MTCS507	Lab – I (Software Engineering Methodologies + Advanced Data Structures)	Lab-I	0-0-4	2
Semester 2nd					
1	MTCS504	Distributed Computing Architecture	Core	4-0-0	4
2	MTCS505	Digital Image Processing	Core	4-0-0	4
3	MTCS506	Information Retrieval	Core	4-0-0	4
4	MTCS6xx	Programme Elective – III	Programme Elective	3-0-0	3
5	MTCS6xx	Open Elective – I	Open Elective	3-0-0	3
6	MTCS508	Lab – II (Digital Image Processing + Information Retrieval)	Lab-II	0-0-4	2
Semester 3rd					
1	MTCS6xx	Programme Elective – IV	Programme Elective	3-0-0	3
2	MTCS6xx	Open Elective – II	Open Elective	3-0-0	3
3	MTCS509	Pre-Thesis Seminar	Pre Thesis Seminar	0-0-4	4
4	MTCS510	Pre-Thesis Project	Pre Thesis Project	0-0-4	4
Semester 4th					
1	MTCS511	Thesis	Thesis	0-0-14	14

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Er. Amanpreet Singh Brar   Dr. Gurpreet Singh Lehal

Er. Sumeet Kaur Seher   Dr. Sukhwinder Singh

Finalizing the List of Core and Elective subjects of new scheme for M.Tech. Computer Science and Engineering

M.Tech. (Full-Time) Computer Science & Engineering Course Scheme.

Sr. No.	Subject Code	Course Title	Type	L-T-P	Credits
1	MTCS501	Software Engineering Methodologies	Core	4-0-0	4
2	MTCS502	Databases and Data Mining	Core	4-0-0	4
3	MTCS503	Advanced Data Structures	Core	4-0-0	4
4	MTCS504	Distributed Computing Architecture	Core	4-0-0	4
5	MTCS505	Digital Image Processing	Core	4-0-0	4
6	MTCS506	Information Retrieval	Core	4-0-0	4
7	MTCS507	Lab.-I (includes MTCS501 and MTCS 503)	Core	4-0-0	2
8	MTCS508	Lab.-II (includes MTCS505 and MTCS 506)	Core	4-0-0	2
9	MTCS509	Pre-Thesis Seminar	Core	0-0-4	4
10	MTCS510	Pre-Thesis Project	Core	0-0-4	4
11	MTCS511	Thesis	Core	0-0-14	14
12	MTCS601	Network Security	Programme Elective	3-0-0	3
13	MTCS602	Ad-hoc Networks	Programme Elective	3-0-0	3
14	MTCS603	Wireless Networks	Programme Elective	3-0-0	3
15	MTCS604	Parallel Computing	Programme Elective	3-0-0	3
16	MTCS605	Cloud Computing	Programme Elective	3-0-0	3
17	MTCS606	Big Data Analytics	Programme Elective	3-0-0	3
18	MTCS607	Advanced Operating System	Programme Elective	3-0-0	3
19	MTCS608	Object Oriented Analysis and Design Using UML	Programme Elective	3-0-0	3
20	MTCS609	Software Testing and Quality Assurance	Programme Elective	3-0-0	3
21	MTCS610	Compiler Design	Programme Elective	3-0-0	3
22	MTCS611	Pattern Recognition	Programme Elective	3-0-0	3
23	MTCS612	Machine Learning	Programme Elective	3-0-0	3
24	MTCS613	Bioinformatics	Programme Elective	3-0-0	3
25	MTCS614	Soft Computing	Programme Elective	3-0-0	3
26	MTCS615	Natural Language Processing	Programme Elective	3-0-0	3
27	MTCS616	Speech Processing	Programme Elective	3-0-0	3
28	MTCS617	Research Methodology	Programme	3-0-0	3

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			Elective		
29	MTCS618	Optimization Techniques	Programme Elective	3-0-0	3
30	MTCS619	Modeling and Simulation	Programme Elective	3-0-0	3
31	MTCS620	Neural Networks and Fuzzy Logic	Programme Elective	3-0-0	3
32	MTCS621	Project Management	Programme Elective	3-0-0	3
33	MTCS622	Human Resources Development and Training Methods	Programme Elective	3-0-0	3

3.3 Finalizing the syllabus of subjects of 1ˢᵗ semester of M.Tech. Computer Science and Engineering New Scheme

Committee approved the proposed syllabus of subjects of 1ˢᵗ semester of M.Tech. Computer Science and Engineering new Scheme and authorized Chairman BOS for further changes, if required.

Agenda Item 4

Question paper setting for end semester examinations of B.Tech. and M.Tech.

The BOS approved the paper setting mechanism by the Controller of examination from the panel of examiners recommended by the Head of department. Regarding the quality checking of the question paper the committee gave the following recommendation:

"The BOS members are of the view that the quality (coverage of syllabus, distribution, format as per specified instructions) of the question paper of end semester examinations should be checked only after the conduct of examination and necessary steps should be taken in case of any discrepancy found."

Agenda Item 5

5.1 Finalizing the books of B.Tech. 1ˢᵗ year Subject FCP&IT

The Following list of books for the subject FCP&IT are approved:

1. Fundamentals of Computers , V. Rajaraman, Prentice Hall of India
2. C: The Complete Reference: Herbert Schildt, McGraw Hill
3. E Balagurusamy, Programming in ANSI C, 3ed., Tata McGraw Hill, 2003
4. Let us C: Y.P. Kanetkar, B.P.B. Publications
5. Computer Concepts and Programming in C, R.S. Salaria, Salaria Publications House
6. Programming in C, Ajay Mittal, Pearson Education
7. Fundamental of Computer Programming and IT, Sumita Arora, Dhanpat Rai & Company.

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The following syllabus of 1st year B.Tech. Subject FCP&IT Lab is approve

# Fundamentals of Computer Programming and IT Lab

1. Familiarization with the Computer System

2. Navigating with Explorer, Working with Control Panel, work at the command prompt, understanding of virus guards and antivirus software, Exploring the Internet.

3. Word processing, spread sheets, presentation software

4. Write a program to find the nature of the roots as well as value of the roots. However, in case of imaginary roots, find the real part and imaginary part separately.

5. Write a program, which takes two integer operands and one operator form user, performs the operation and then prints the result. (Consider the operators +,-,*, /, % and use switch statement).For example, the input should be in the form: 5 + 3 the output should comes Result = 8

6. Fibonacci sequence is defined as follows: the first and second terms in the sequence are 0 and 1. Subsequent terms are found by adding the preceding two terms in the sequence. For example, for n = 8, the output program to generate the first n terms of the sequence. Write a should be 0 1 1 2 3 5 8 13

7. Write a program to print all the prime numbers between m and n, where the value of m and n is supplied by the user.

8. The number such as 1991, is a palindrome because it is same number when read forward or backward. Write a program to check whether the given number is palindrome or not.

9. A positive integer number IJK is said to be well-ordered if I<J<K. For example, number 138 is called well-ordered because the digits in the number (1, 3, 8) increase from left to right, i.e., 1 < 3 < 8. Number 365 is not well-ordered because 6 is larger than 5. Write a program that will find and display all possible three digit well-ordered numbers. The program should also display the total number of three digit well-ordered numbers found.

10. Write a function to computer the highest common factor of integer numbers m and n. Use this function to find the highest common factor of integer numbers a and b.

11. Given the marks (out of 100) obtained by each student in a test of a class with n students. Write a program to obtain the following information:
   (a) minimum and maximum score of the class,
   (b) average score of the class, and
   (c) number of students whose score is greater than class's average score

12. Write a program to multiply matrix Am×n by Bp×q, given that n = p.

13. Write a program to sort a list of n integer numbers in descending order using bubble sort method.

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14. Write a program to perform the addition and multiplication of two complex numbers using structures.

15. Write a program using pointers to compute the sum of all elements stored in an array.

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