I.K. Gujral Punjab Technical University

(Minutes of Meeting)

Board of Studies of Mechanical Engineering/Production Engineering/Industrial Engineering/Automobile Engineering

A meeting of the Board of Studies (Mechanical Engineering/Production Engineering/Industrial Engineering/Automobile Engineering) constituted vide Notification No. IKGPTU/Reg/NF/26 dated 01/03/17 was held on December 15th, 2017 at 11:00 in the conference hall, Department of Academics, G+3 Building, main campus, I.K. Gujral Punjab Technical University, Jalandhar, Jalandhar-Kapurthala highway, Punjab.

The agenda of the meeting was:

- To discuss and finalise the syllabus of M.Tech Mechanical Engineering 2nd semester onwards.
- To discuss the syllabus of B.Tech 1st year subjects related to Mechanical Engineering for the coming session.
- · To discuss any other matter with the permission of Chair.

Following members of BOS and special invitees were present and actively participated:

- 1. Dr. Vikas Chawla, Professor & Head, Department of Mechanical Engg., IKGPTU, Kapurthala
- 2. Dr. Om Pal Singh, Professor, Department of Mechanical Engg, BCET, Gurdaspur
- 3. Dr. Neelkanth Grover, Assoc. Prof. Department of Mechanical Engg, IKGPTU, Kapurthala
- 4. Dr. Deepak Kumar Goyal, Asstt. Prof., Department of Mechanical Engg, IKGPTU, Kapurthala
- 5. Dr. Jujhar Singh, Asstt. Prof., Department of Mechanical Engg, IKGPTU, Kapurthala
- 6. Dr. Amoljit Singh Gill, Asstt. Prof., Department of Mechanical Engg, IKGPTU, Kapurthala
- 7. Er. Navdeepak Sandhu, Dy. Director CR&A, IKGPTU, Kapurthala
- 8. Dr. Manoj Mittal, Asstt. Prof., Department of Mechanical Engg, IKGPTU, Kapurthala (Special invitee)
- 9. Dr. Vivek Aggarwal, Asstt. Prof., Department of Mechanical Engg, IKGPTU, Kapurthala (Special invitee)
- 10. Er. Sewa Singh, A.P., ACEM, Kapurthala (Special invitee, PTU Alumni)
- 11. Dr. Amit Bansal, Asstt. Prof., Department of Mechanical Engg, IKGPTU, Kapurthala (Special invitee)

Following members of BOS and special invitees could not attend the meeting:

- 1. Dr. Buta Singh Sidhu, Dean Planning, MRSPTU, Bathinda (Special invitee)*
- 2. Dr. S.P. Singh, Professor, IIT, Delhi*
- 3. Dr. Dinesh Kumar, Professor, IIT, Roorkee
- 4. Dr. Ajay Batish, Professor, Thapar University
- 5. Dr. Harwinder Singh, Professor, Department of Mechanical Engg, GNDEC, Ludhiana*
- 6. Dr. Paramjit Singh Bilga, Professor, Department of Mechanical Engg, GNDEC.Ludhiana
- 7. Dr. Dilbag Singh, Asso. Prof. Department of Mechanical Engg, BCET, Gurdaspur*
- 8. Dr. Sumit Jain, Assoc. Prof., Department of Mechanical Engg, CTIMT, Jalandhar
- Er. Sumit Bansal, BHEL, Goindwal Sahib (Special invitee from industry)*
 *The comments sent by BOS members has been incorporated in the syllabus.

Chart 15/12/17

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Date: 15/12/2017

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The Board has taken the following decisions:

- 1. The scheme of M.Tech. Mechanical Engineering was discussed and list of elective subjects has been revised. Revised and finalised list of elective subjects is attached herewith. (Annexure-I)
- The syllabus of M.Tech. Mechanical Engineering 2nd semester onwards was discussed 2. and finalised (Details are attached as Annexure II).
- It was suggested that the scheme of 1st year as per AICTE Model Curriculum issued in 3. November 2017 for the first year undergraduate Degree Courses in Engineering & Technology (B.Tech.) to be adopted by the university w.e.f. session 2018-2019 for the admission batch 2018-19 onwards.
- 4. The syllabus of Mechanical Engineering subjects offered in B.Tech. 1st year was discussed and the task of designing the detailed syllabus of Engineering Graphics & Design is assigned to the team of Dr. Vikas Chawla, Dr. Amoljit Singh and Er. Sewa Singh, A.P., ACEM, Kapurthala (Special invitee, PTU Alumni). The team will submit the same by 15th January, 2018.

Dr. Vikas Chawla

Dr. Deepak Kumar Goyal

Er. Navdeepak Sandhu

Dr. Amit Bansal

Dr. Om Pal Singh

Dr. Amoljit Singh Gill

Dr. Vivek Aggarwal

Annexure-I

List of Elective Subjects for M. Tech. Mechanical Engineering

List of Electives (Manufacturing & Industrial Engineering)

- Advanced Welding Technology
- Automation and Robotics
- Advanced Material Characterization Techniques 3.
- 4. Rapid Prototyping
- 5. Advanced Metal Cutting
- 6. Advanced Casting Processes
- 7. Maintenance and Reliability Engineering
- 8. Supply Chain Management
- 9. Product Design and Development

List of Elective (Design)

- Engineering Design Optimization
- Advanced Vibration Engineering
- 3. Mechatronics
- Dynamics of Rotating Machines
- 5. Experiential Stress Analysis
- 6. Sustainable Design and Manufacturing
- Vibration and Noise Control
- Composite Materials
- Instrumentation and Control Engineering 9.

List of Elective (Thermal)

- 1. Advanced Internal Combustion Engines
- 2. Design of Steam Turbine
- 3. Convective Heat Transfer
- 4. Combustion Engineering
- 5. Conductive & Radiative Heat Transfer
- 6. Solar Energy Utilization
- Design of HVAC systems
 Design and Optimization of Thermal Systems
- 9. Advanced Heat and Mass Transfer

Note:

- (A) Student can opt Elective I, II &III subjects from the entire list electives as above.
- (B) If a student selects all the three elective subjects form the same group of electives and also completes his / her project and dissertation in the same field, he /she may be awarded a separate / additional certificate indicating the more concentration in a particular field e.g. Manufacturing and Industrial, Design or Thermal of his / her M. Tech degree.