

Guidelines for preparing B. Tech Seminar

1. Selection of topic/area

Select a paper according to the specialisation of students. Papers from any other approved journals can also be selected.

2. Approval to the selected topic

After selecting the paper, get approval from the concerned faculty in charge.

3. Study of topic

Students are requested to acquire a thorough knowledge on the subject by referring back papers and reference books (These may be included as references at the end of the paper) on the corresponding area.

4. Preparation of slides for presentation

Slides may be presented in MS power point. Time allowed for presentation is 20 minutes for presentation and 5 minutes for discussions. So, number of slides may be around 20 - 25 to adhere the time limit.

5. Organisation of slides

- a. The first slide will be a title page showing the title, name of author (presenter), roll no. and Class.
 - b. 2nd page will contain overview of the seminar
 - c. Successive pages will contain
 - a. Objectives of the paper
 - b. Introduction
 - c. Body of the paper includes system dynamics, methodology, graphs, block diagrams etc. arranged in a logical sequence depending on the problem.
 - d. Results and discussions
 - e. Conclusion
 - d. Last page will contain references and bibliography. References must be presented in IEEE format, which is given as Annexure 2.
6. Each slide consists of **4 or 5 lines** with enough space between lines.
7. All equations must be typed using equation editor (available with MS office/other office suite)
8. Each slide will have a **title** and each figure have a **caption**.

9. An abstract of the work (seminar) is to be circulated among the faculty and fellow students before presentation of the seminar. The abstract is prepared as follows.

The seminar abstract is an important record of the coverage of topic and provides a valuable source of leading references for students and faculty alike. Accordingly, the abstract must serve as an introduction to your seminar topic. It will include the key hypotheses, the major scientific findings and a brief conclusion. The abstract will be limited to 500 words, excluding figures and tables. The abstract must contain references to the research articles upon which the seminar is based as well as research articles that have served as key background material. The references should be listed using a standard format (IEEE format given in App. 1). The abstract must be submitted to the faculty in charge and get approval before the presentation.

10. Draft copy of the Seminar report should also be submitted before the presentation

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Annexure. 1, IEEE Journals & Transactions

- Aerospace and Electronic Systems, IEEE Transactions on
- Applied Superconductivity, IEEE Transactions on
- Automatic Control, IEEE Transactions on
- Automation Science and Engineering, IEEE Transactions on
- Biomedical Circuits and Systems, IEEE Transactions on
- Biomedical Engineering, IEEE Transactions on
- Communications, IEEE Transactions on
- Components, Packaging and Manufacturing Technology, IEEE Transactions on
- Computer-Aided Design of Integrated Circuits and Systems, IEEE Transactions on
- Consumer Electronics, IEEE Transactions on
- Control Systems Technology, IEEE Transactions on
- Dielectrics and Electrical Insulation, IEEE Transactions on
- Electrical and Computer Engineering, Canadian Journal of
- Electromagnetic Compatibility, IEEE Transactions on
- Energy Conversion, IEEE Transactions on
- Engineering Management, IEEE Transactions on
- Evolutionary Computation, IEEE Transactions on
- Fuzzy Systems, IEEE Transactions on
- Industrial Electronics, IEEE Transactions on
- Industry Applications, IEEE Transactions on
- Instrumentation and Measurement, IEEE Transactions on
- Intelligent Transportation Systems, IEEE Transactions on
- Magnetics, IEEE Transactions on
- Micro-electro-mechanical Systems, Journal of
- Nanotechnology, IEEE Transactions on
- Neural Networks, IEEE Transactions on
- Pattern Analysis and Machine Intelligence, IEEE Transactions on
- Power Electronics, IEEE Transactions on
- Power Systems, IEEE Transactions on
- Robotics, IEEE Transactions on
- Sensors Journal, IEEE
- Signal Processing, IEEE Transactions on
- Smart Grid, IEEE Transactions on Software Engineering, IEEE Transactions on
- Solid-State Circuits, IEEE Journal of
- Systems, Man and Cybernetics, IEEE Transactions on

- Journal of guidance, control and dynamics
- Journal of space crafts and rockets
- Journal of American helicopter society
- Journal of Aircrafts
- AIAA journal
- International journal of robotics
- International journal of navigation, guidance and control
- International journal of robotics and automation

Annexure 2. References

- [1] Paresh C. Sen, Chandra S. Namuduri and Pradeep K. Nandam, "Evolution of control techniques for industrial drives," *Proceedings of the Power Electronics, Drives and Energy Systems Conference (PEDES-96)*, New Delhi, India, January 1996, pp. 869-875.
- [2] Boldea and S. A. Nasar, "Vector Control of ac Drives," CRC Press, USA, 1992.
- [3] M. A. El-Sharkawi *et al.*, "High performance drive of brushless motors using neural networks," *IEEE Transactions on Energy Conversion*, vol. 9, no. 2, June 1994, pp. 317-322.
- [4] Key Hameyer and Ronnie J. M. Belmans, "Permanent magnet excited brushed dc motors," *IEEE Transactions on Industrial Electronics*, vol. 43, no. 2, April 1996, pp. 247-255.
- [6] Teck-Seng Low, M. A. Jabbar and M. A. Rahuman, "Permanent magnet motors for brushless operation," *IEEE Transactions on Industrial Applications*, vol. 26, no.1, January/February 1990, pp. 124-129.
- [7] Ahmed Rubaai and Raj C. Yalamanchili, "Dynamic study of an electronically brushless dc machine via computer simulations," *IEEE Transactions on Energy Conversion*, vol. 7, no. 1, March 1992, pp. 132-138.
- [8] Gordon R. Slemon, "On the design of high performance surface mounted permanent magnet motors," *IEEE Transactions on Industrial Applications*, vol. 30, no. 1, January/February 1994, pp. 135-140.
- [9] Nabeel. A. O, Demerdash and Mohd. A. Alhamadi, "Three dimensional finite element analysis of permanent magnet brushless dc motor drives - status of the state of the art," *IEEE Transactions on Industrial Electronics*, vol. 43, no. 2, April 1996, pp. 268-275.
- [10] L. Zong, M. F. Rehman, W. Y. Hu and K. W. Lim, "Analysis of direct-torque control in permanent magnet synchronous motor drives," *IEEE Transactions on Power Electronics*, vol. 12, no. 3, May 1997, pp. 528-532.
- [11] W. K. Ho *et al.*, "Performance and gain and phase margins of well known PID tuning formulas," *IEEE Transactions on Control Systems Technology*, vol. 4, no. 4, July 1996, pp. 473-477.
- [12] Qing-Guo Wang *et al.*, "PID tuning for improved performance," *IEEE Transactions on Control Systems Technology*, vol. 7, no. 4, July 1999, pp. 457-465.