

Minimum requirements to use NanoIndenter recommended for new users at CEITEC Nano RI

Hysitron TriboIndenter TI 950 is a high throughput instrument to support the numerous nanomechanical and nanotribological characterization techniques. The combination of feedback control algorithms and superior measurement sensitivity together with proprietary capacitive transducer technology makes an extremely versatile and effective nanomechanical characterization tool. However, working with such a complicated and sensitive system requires a senior level of experience in practice as well as theoretical sense. Otherwise, the training takes a much longer time and requires much more effort from both the trainee and the trainer than on the other instruments. On the other hand, due to multiple calibrations, which are essential for the measurements and measurement modes, it is not recommended to have multiple users for Hysitron TriboIndenter. Therefore;

The ideal trainee to use NanoIndenter is expected to have

1. obtained sufficient knowledge and background in the nanomechanical characterization,
2. a long-term measurement plan with routine schedule (at least twice per month),
3. commitment to publish the obtained results from the measurements.

If you intend to use Hysitron Triboindenter system, the user must answer the following questions, sent by email to saeed.mirzaei@ceitec.vutbr.cz in order to arrange a proper training session.

1. What is the level of your knowledge on nanoindentation (rate yourself as of 1-10)?
2. If you have already worked with similar systems, please name them.
3. Briefly describe your project and information about the samples.
4. What information you need to extract from NanoIndenter?
5. How long and how often you are planning to use NanoIndenter at CEITEC Nano RI?
6. Which mode of the Nanoindenter you will be using?
7. Are you agreeing that you carefully read this document and accept all terms and condition?