Web-based education is currently a hot research and development area. Thousands of Web-based courses and other educational applications have been made available on the Web, but the problem is that most of them are nothing more than a network of static hypertext pages. This paper describes the new features of an adaptive intelligent tutoring system (ITS) on the Web.

The architecture presented in this paper provides a protected learning environment to facilitate efficient learning to the students with adaptation of the learning environment to the learner's goal and capability. To produce this educational system, we distinguish three spaces:

- Adaptive navigation space to support the student’s orientation and help them to find an "optimal path", with use of the case-based reasoning technique (CBR). We introduce the use of experiments which constitutes the keystone of this system of aid for learners.
- Adaptive collaboration space to use the system's knowledge about different users (stored in user models) to form a matching collaborating group. In our system, the learner is an actor of the course construction and not a consumer. The learner can do annotations on the course pages following the link included on all the pages where annotations are allowed. This, will be guide the adaptation of the collaboration between the tutor system and the learner or learner/learner or group with tutor.
- Adaptive information space to adapt the content of pages to the user's goals stored in the user model.

The architecture of our system will be presented and the implementation outlined.