

**In the course the following tests have to be taken:**

**1 colloquium (pcb theory) max 20 points**

**seminar work (pcb design) max 25 points**

**2 colloquium (power electronics tasks) max 50 points**

**A maximum of 5 points is awarded for class attendance.**

**Teaching materials can be found here:**

**<https://people.vts.su.ac.rs/~bnandor/ENELE/>**

**<https://people.vts.su.ac.rs/~bojan/PCB/>**

### **Project in printed circuit board (PCB) design**

**The student, in coordination with the subject professor, chooses a topic for the project.**

**The task of the project is to design a printed circuit board. The printed circuit board is mainly designed in the Circuitmaker program, but the student can choose another program for designing if he has previously mastered the work in that program.**

**The designed printed circuit board must contain at least:**

- own power supply (via power adapter connection)**
- minimum 3 integrated circuits**
- two-layer board**
- must contain the company's logo (the student should design his company's logo)**
- each component must have a schematic, footprint and 3D model**
- each integrated circuit must have a 100nF and 10uF capacitor placed as close as possible to the power supply pins of integrated circuits**
- GND (ground) must be made in the form of a polygon**
- the routing rules, explained in the lessons, must be applied (thicker power lines than signal lines, star power distribution, distance between conductors...)**

**The student submits, in a zip file, the sch and pcb files, along with the gerber and drill files needed to make the board.**

**The zip file also must include a document (in word or pdf format) describing the implemented project.**