
**JUSTIFICANTE DE LA PROPUESTA DE TEMAS DE TRABAJO FIN DE ESTUDIOS
TRAMITADA POR EL PROFESOR**

Curso académico: 2015-16

Titulación: Grado en Ingeniería Electrónica Industrial y Automática

Datos del profesor

Persona que ha tramitado la propuesta: CARLOS ELVIRA IZURRATEGUI

Departamento: INGENIERÍA ELÉCTRICA

Fecha y hora de validación de la propuesta: 04/12/2015 15:20

Datos de la propuesta

Código: 16013-805G

Tema propuesto: Design and development of a low cost microprocessor system to monitor the intake energy in a rack servers.

Tutor/es:

CARLOS ELVIRA IZURRATEGUI

SILVANO NÁJERA CANAL

Tipo de trabajo: No concertado

Breve descripción: This finish grade work includes the design and development of a monitoring system applied to a set of informatic servers, which are located in a 19" rack. These servers give network support services to the laboratory. The monitor system will be based on a low cost Open-source hardware (Arduino / Raspberry, etc ...) , and it will collect information from electricity consumption by sensors and acquisition system, sending them to a server through the intranet. The client-server model allows monitoring and / or storage all data.

Objetives:

- Study of the actual infraestructure (servers, rack, ...).
- Design the hardware to capture intake electrical measures.
- Program the low cost open-source hardware to capture and transmit the measures to the servers.
- Develop a prototype installed in the rack.
- Check the prototype for further assembly in series.

Idioma/s: Castellano

Propuesta de seguimiento: Tutors will schedule all the tasks in order to meet the objectives. Student will show the tutors all the scheduled tasks. All the tasks will be deploy in the L123 laboratory (Polytechnic Building). Student and tutors will use collaborative resources to establish contact.

Requisitos: Students interested in this finish grade work must initiate contact with the

tutors. The students must have passed all the courses in the first three years of the schedule planning grade. What a student must know:

- Arduino/Raspberry programming knowledge and interest in.
- Network services.
- Basic electronic instrumentation hardware knowledge.
- Basic 3D spatial design.

Nº. Plazas ofertadas:

- Libres: 1
- Concertadas: NO