GROUP NAME	PI	CONTACT EMAIL	DEPARTAMENT	WEB	SMART GRIDS
Signal Processing and Radiocommunications Group	Angueira Buceta, Pablo	pablo.angueira@ehu.eus	Ingenieria de Comunicaciones	http://www.ehu.eus/tsr_radio/	1. Characterization of the Low Voltage grid as propagation medium for communications: noise, emissions, access impedance and transmission losses. 2. Empirical measurements of propagation parameters in lab and in the LV grid. Design and implementation of measurement systems and software to automate and process measurement recordings. 3. Development of methods and algorithms to characterize noise, emissions and communication signals both in time and frequency domains. 4. Analysis of PLC (Power Line Communications) and BPL (Broadband PLC) transmission technologies in different propagation conditions. Effects of both channel response and coding techniques on the performance of communications.
GISEL	Eguia, Pablo Zamora, Inmaculada (CoPI)	inmaculada.zamora@ehu.eus	Ingeniería Eléctrica	https://www.ehu.eus/en/web/gisel	1. Operation of distribution networks with high shares of distributed generation and other inverter based resource assets (storage, FPL, SSSC, etc.). 2. Digitalization of distribution networks. 3. Protection system virtualization.
ELEKTRIKER	Fernández Herrero, Elvira	elvira.fernandezh@ehu.eus	Ingeniería Eléctrica	---------------------------	1. Application of the dynamic line rating to the power system congestion management. 2. Dynamic line rating monitoring sytems. 3. Dynamic line rating forecasting. 4. Simulation of the power system operation using DIgSILENT PowerFactory
Group of Signal and Communications	Gutiérrez, José Julio	Josejulio.gutierrez@ehu.eus	Ingenieria de Comunicaciones	https://www.ehu.eus/es/web/gsc/home	1. Signal Processing for Earth Fault Location and Preventive Maintenance. It is the driving force of the group in terms of technology transfer, thanks to our solid collaboration with Iberdrola i-DE in the next áreas: Localization of simultaneous faults in medium voltaje; Identification of new patterns of anomalies in medium voltaje; Identification and localization of faults in low voltaje; Adaptation of algorithms to the electrical systems of other countries Objective L2.3.
ENEDI (Energy in Buildings)	Martin Escudero, Koldobika	Koldobika.martin@ehu.eus	Ingeniería Energética	https://www.ehu.eus/en/web/enedi/enedi-group	1. Deals with the design, simulation and experimental evaluation of active systems for the thermal conditioning of buildingsThe main activities of the research team include: Steady and dynamic characterization of thermal production equipment by experimental analysis; Development of individual and integral models for the simulation of thermal plants in domestic applications and small tertiary sector; Development of operative and control strategies of the optimal operation of these kind of installations by advanced control techniques; Experimental analysis of the operation and integration of micro-cogeneration units in the residential sector; Application of Thermoeconomics in the sizing and operation of the thermal production systems and their operation within the installation.
Applied Electronic Research Team (APERT)	Martín González, José Luis	Joseluis.martin@ehu.eus	Tecnología Electrónica	https://www.ehu.eus/en/web/apert/start	1. Power and control circuits for Energy Converters. This research line is oriented to the design and study of power converters for electric power generation, conversion, storage and transmission. In this line, we work on new control algorithms and power converters for the smart grid. We have had projects in the past in this area and now we have a research project with Iberdrola. In addition, we participate with other institutions and companies in the Global Smart Grids Innovation Hub promoted by the Iberdrola Group.