

Workshop overview

Introduction

This document is overview of an interactive workshop concerning the utilization of EAP in your application(s) and the corresponding requirement specifications and conceptualizations.

The intended result is to provide you with intimate understanding of EAP technology based on which we together specify the envisioned products efficiently, ensuring a realistic and cost efficient integration of EAP solution in your products.

The workshop has a two-day duration and will be provided by two employees from LEAP Technology at your site.

Workshop content

Day 1

Morning session – fundamentals

Familiarizing all participants with EAP technology:

- Introduction to EAP technology fundamentals:
 - Materials – state of the art in EAP material research.
 - Functions – fundamental functionalities of EAP.
- Generic construction of EAP sensors and actuators (EAP devices),
- Drive electronics of EAP devices,
- Mathematical and diagrammatical representation of EAP devices.
- EAP value propositions, strengths, weaknesses, and comparison with other technologies.

Afternoon session – requirement specifications

- Your products requirements:
 - What is your envisioned product(s)?
 - How is it expected to be a competitive product?
 - What specific needs should it satisfy?

This identifies qualifiers and differentiators of the envisioned product(s).
- EAP requirements: Assess EAP functional requirements in order to satisfy application needs in more detail. This analysis has two parts;
 - Develop a complete understanding of the whole system (product, EAP device, electronics, controller, software, transmission, etc.) and;
 - Identify and classify each required function as being “must”, “should” and “could”.

Day 2

Morning session – conceptualization and quantification

- With Day 1 as context, the EAP device concepts are developed with following design concepts and quantifications;
 - EAP device configurations,
 - Required sizes,
 - Possible integration mechanisms into the product(s),
 - Protective encapsulation compatible with your application,
 - Drive electronics topologies,
 - Transmission of data,
 - Processing of data (software),
 - Power consumption.

Afternoon session – Proof of concept project planning

- Discussion on the proof of concept project:
 - The necessary work packages.
 - Timeline (initiations and durations).
 - Expected deliverables.
- Planning the very next task and meeting.