

The idea of using power lines also for communication purposes has already been around at the beginning of the last century. It is now broadly referred to as *power line communications* (PLC). The obvious advantage is the wide spread availability of electrical infrastructure, so that theoretically deployment costs are confined to connecting modems to the existing electrical grid.

Today, applications include the provisioning of internet to end customers, referred to as *Access PLC*, or *bro*

*ad band over power line*

(BPL). Besides, PLC technology is successfully being used for the distribution of audio, video, voice and data services within the users' homes, also referred to as *In-Home PLC*

. Further, utility companies are becoming more and more interested in *automatic meter reading infrastructure* (AMI) and *smart grid*, allowing a more efficient electrical network management.

The course "Power Line Communications" comprises the following main sections:

1. Evolution of Power Line Communications
2. Power Line Standardization Landscape
3. Power Line Communication Scenarios
4. Power Line Channel
5. Power Line Noise
6. Electromagnetic Compatibility and Regulatory Aspects
7. Universal Poweline Association Standards (UPA) - Key Aspects
8. HomePlug Standards - Key Aspects
9. High Definition Power Line Communications (HD-PLC) - Key Aspects
10. IEEE P1901 - Key Aspects
11. ITU-T G.hn / G.hnem - Key Aspects

For more information on available course venues or to contract a course targeted at your institution's or company's needs feel free to contact us under [info@breezesolve.com](mailto:info@breezesolve.com)

