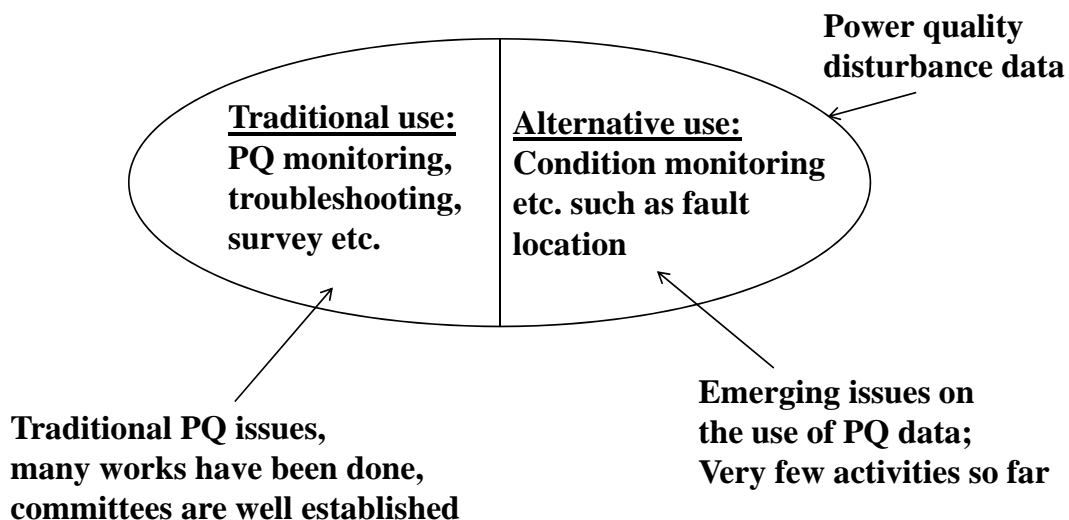# IEEE Power Quality Subcommittee

Working Group on
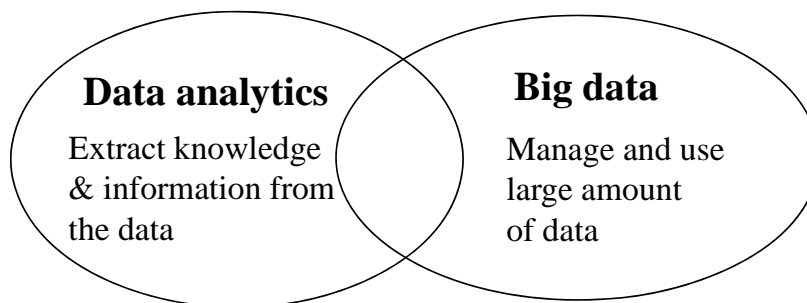# Power Quality Data Analytics

Objective & Scope

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Clarification 1: the use of power disturbance data

Power quality disturbance data

Traditional use:
PQ monitoring, troubleshooting, survey etc.

Alternative use:
Condition monitoring etc. such as fault location

Traditional PQ issues, many works have been done, committees are well established

Emerging issues on the use of PQ data; Very few activities so far

Clarification 2: Data analytics versus big data

Data analytics

Extract knowledge
& information from
the data

Big data

Manage and use
large amount
of data

- **Knowledge may be extracted from small or large amount of data**
- **Big data issues (such as storage and visualization) exist for both traditional and alternate use of PQ data**

So these are two distinct subjects, although there are some overlaps

The positioning of this WG

Issues / Subject Areas	Old	New	
	Power quality Monitoring	Extracting knowledge ("data analytics")	Dealing with large amount of data ("big data")
Traditional uses of PQ data	Applicable		Applicable
Alternative uses of PQ data		Applicable	Applicable

Primary focus of this WG

Objective and Scope of WG

Objective:

To develop use-cases, recommendations and guidelines for extracting information and knowledge from the power quality disturbance data for applications beyond traditional power quality concerns, such as condition monitoring and fault diagnosis.

Scope:

1) Promote and support PQ data analytics research and application activities,

2) Share data and experience on PQ data analytics,

3) Develop guidelines for PQ disturbance analytics including algorithms, tools and monitoring networks.