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# Surge Protection Anthology

## Contents – Part 6

### Tutorials, Textbooks, and Reviews

Surges Happen!

This is a printer-friendly version of the Part 6 Launch Page, for your convenience if you wish to print it for future off-line reference.

Organization of this Part 6 of the Anthology is different from the other parts because it contains too many large files, which would make global on-line downloading of all files cumbersome and slow. Instead, I have grouped the papers (in pdf format) into several subject categories, as tabulated below, which you can access directly from the on-line launch page (but not from this print-only file). After returning to the launch page, for each category you can do a global word search in the “Text” MS Word file for all the papers included in that category. In the table, the files are listed in chronological order within each category to help you track the evolution of subject interests in the SPD community. Three annexes include unpublished contributions to working groups, US patents front pages, and NIST Special Publication 960-6.

Many of the papers included in this Part 6 were presented to disseminate the same concerns that were then emerging among different audiences on both sides of the Atlantic. Consequently, when placed next to each other, some might appear redundant. Collecting all of them – the very purpose of an anthology is to make them all available – might create for you a feeling of *déjà vu*, so that I offer this explanation in advance.

Best wishes and good browsing !



Category	Paper title	Date
<b>Lecture Handouts</b>	Transient overvoltage protection seminar	1979
	Transient overvoltage protection in the undefined real world environment	1979
	Electrical protection of cellular radio sites	1983
	Line conducted disturbances – Origins and control	1984
	Word-searchable file of Lecture Handouts	2004
<b>Protective Devices</b>	Metal-oxide varistor: A new way to suppress transients (B/W)	1972
	Metal-oxide varistor: A new way to suppress transients (full color)	1972
	Transient overvoltage protection: The implications of new techniques	1981
	Lightning and NEMP transient protection with metal oxide varistors	1982
	Surge suppressors and clamps	1986
	A glimpse at long-term effects of momentary overvoltages on ZnO varistors	1989
	What are the lights on your surge protector telling you?	1998
	Lingering lead length legacies	2004
Word-searchable file of Protective Devices papers	2004	

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Category	Paper title	Date
<b>Site Surveys</b>	Power quality site surveys: Facts, fiction, and fallacies	1988
	Power quality measurements: Bringing order out of chaos	1988
	Monitoring power quality	1990
	Systems and instruments in site surveys	1990
	No joules for surges: Relevant and realistic assessment of surge stress threats	1995
	Surge recordings that make sense: Shifting focus from voltage to current measurements	1996
	Surge recordings that make sense: Joules deposition: Yes! – “Joule content’: Never!	1997
	The fallacy of monitoring surge voltages: SPDs and PCs galore!	1999
	Some enlightening case histories on lightning damage	2000
	Word-searchable file of Site Surveys papers	2004
<b>Standards Reviews</b>	A guideline on surge voltages on AC power circuits rated up to 1000 V	1979
	The development of a guideline on surge voltages in low-voltage AC power circuits	1979
	A consensus on powering and grounding sensitive electronic equipment	1986
	A standard for the 90s: IEEE C62.41 surges ahead	1991
	Standards : Transnational aspects	1991
	Power quality work at the International Electrotechnical Commission	1997
	The Trilogy update of IEEE Std C62.41	2000
	New IEEE standards foster next-generation system compatibility	2002
	Word-searchable file of Standards Reviews papers	2004
<b>System Compatibility</b>	Performance criteria for power-system compatibility	1992
	Characterization of TVSS from a system compatibility perspective	1992
	An important link in whole-house protection: Surge reference equalizers	1993
	Consumer power quality problems: Troubleshooting by telephone	2002
	Word-searchable file of TVSS Compatibility papers	2004
<b>System Protection Techniques</b>	Surge protection techniques in low-voltage AC power systems	1979
	The coordination of transient protection for solid-state power conversion equipment	1982
	Lightning protection of roof-mounted solar cells	1983
	The protection of industrial electronics and equipment against power & data line disturbances	1964
	The protection of computer and electronic systems against power and data lines disturbances	1985
	Lightning and surge protection of photovoltaic installations	1989
	Protecting computer systems against power transients	1990
	Update on a consumer-oriented guide for surge protection	1999
	Word-searchable file of System Protection Techniques papers	2004
<b>Transient Control Levels</b>	Transient control levels: A proposal for insulation coordination in low-voltage systems	1976
	Transient Control Levels: A better way to voltage ratings in power converter applications	1976
	Transient control level philosophy and Implementation – Reasoning behind the philosophy	1977
	Transient control level philosophy and implementation – Techniques and equipment for testing	1977
	Transient Control Levels: A new concept licks an old telco problem	1977
	Transient Control Level test generators	1977
	Word-searchable file of Transient Control Level papers	2004
<b>Unpublished Contributions to Working Groups</b>	Overvoltage protection: Principles, postulates and perceptions	1994
	Revisiting reality checks on the surge environment	1995
	Black boxes beget blind spots (Also draft of paper submitted for IEEE Transactions PWRD)	2004
<b>Surges Happen!</b>	Surges Happen! – How to protect the appliances in your home (NIST Special publication 960-6)	2001
<b>Patents Perspective</b>	Patents and perspective on surge protection for low-voltage circuits	2004