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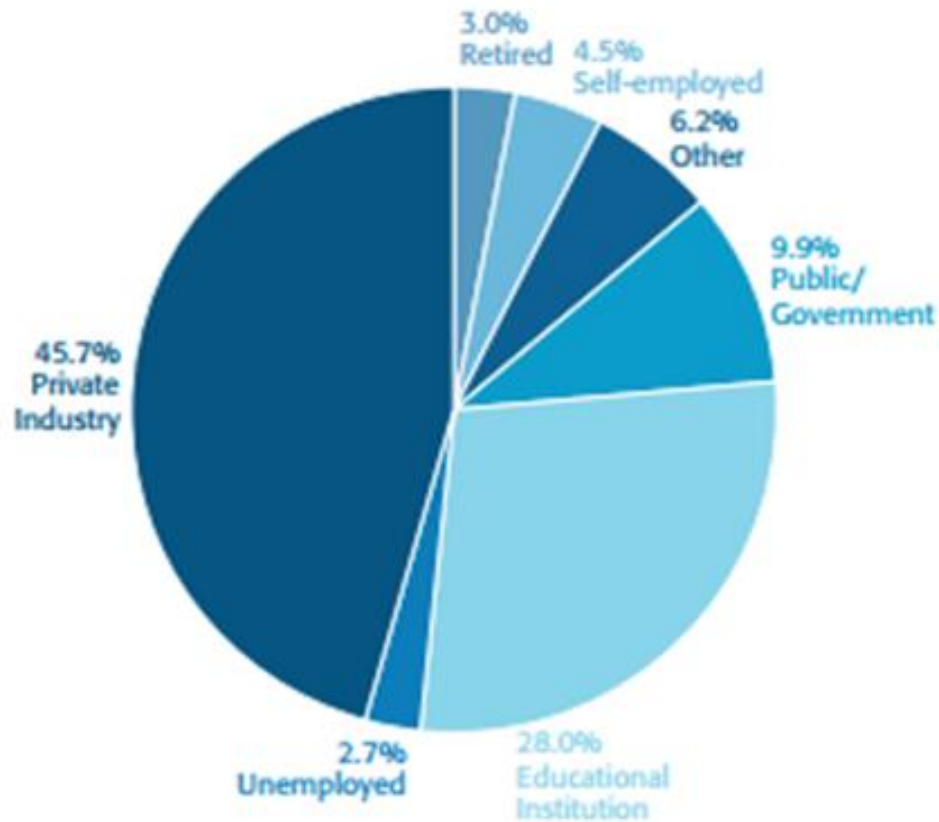
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UHD TV

- 풀HD TV방송보다 네 배 이상 화질이 선명한 ‘4K급 초고화질(UHD)’ TV 방송.
- 실물에 가까운 생생한 화질을 제공하는게 특징
- UHD급은 모공뿐 아니라 어린 아이의 솜털까지 관찰 가능
- UHD TV는 색 재현력이 좋아지면서 입체감 있는 화면을 전달



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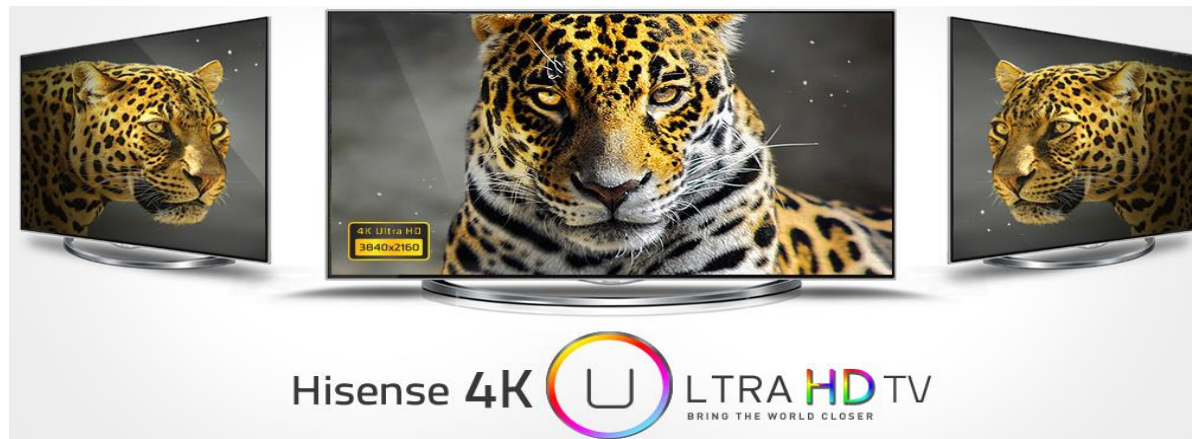


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LG전자 : OLED



미래형 디스플레이 유기발광소자 적용



하이센스 : UHD



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UHD얼라이언스(UHDA)



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SMPTE ST 2084

해상도 : 3840*2160

컬러 비트 : 10비트

색공간 : BT.2020 색표준을 준수하며 DCI/P3 색재현률 90% 이상

HDR : EOTF가 **SMPTE ST2084**에 대응,

밝기는 최소~최대가 0.05~1000니트 혹은 0.0005~540니트

오디오 : 규정 없음. 차세대 오디오 권고.



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SMPTE ST 2084

HDR 밝은 부분은 더 밝게, 어두운 부분은 더 어둡게
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영화 텔레비전 기술자 학회

Oscar 그리고 Emmy 시상식에서 영상분야 발전 공로를 인정

- 2013년 Technology and Engineering Emmy 수상



전세계 예술, 과학, 이미지 기술, 음향분야의 선두주자이며, 국제적으로 인정받은 기관
으로 영상, 과학, 미디어, 엔터테인먼트산업에 기여



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- SMPTE 규격은 Motion-imaging 산업 분야에서 중요한 역할을 하고있으며, 2D 부터 3D 그리고 증강현실 뿐만 아니라 영상관련 모든 분야에 꼭 필요한 규격을 제공
- ANSI와 ISO의 가이드라인을 따른 표준제정
- 기술표준 (Standards), 권고안 (Recommended Practices), 지침 (Guideline)등을 포함



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- Current Journals
 - Broadcasting, IEEE Transactions on
 - Display Technology, IEEE/OSA Journal of
 - Consumer Electronics, IEEE Transactions on
 - Image Processing, IEEE Transactions on
 - Multimedia, IEEE Transactions on
 - Circuits and Systems for Video Technology, IEEE Transactions on
- Conferences
 - Annual IEEE Broadcast Symposium
 - International Conference on Image Processing
- Legacy Journals
 - Broadcast Transmission Systems, IRE Transactions on (1955 - 1958)
 - Broadcast and Television Receivers, IEEE Transactions on (1963 - 1974) and mor



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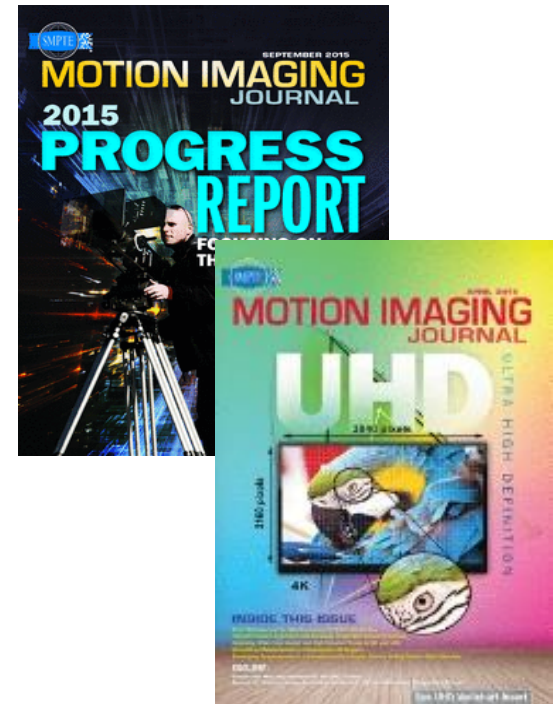
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Motion Imaging Journal

- 연간 8권 발행 (2월과 8월 제외)
- Motion Imaging 분야 최신 기술 정보를 수록
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- 1969년 자료부터 이용 가능하며 현재까지 2,000개 이상 자료 수록
- 시대에 따른 Motion-imaging의 기술을 살펴볼 수 있는 최고의 학술 자료



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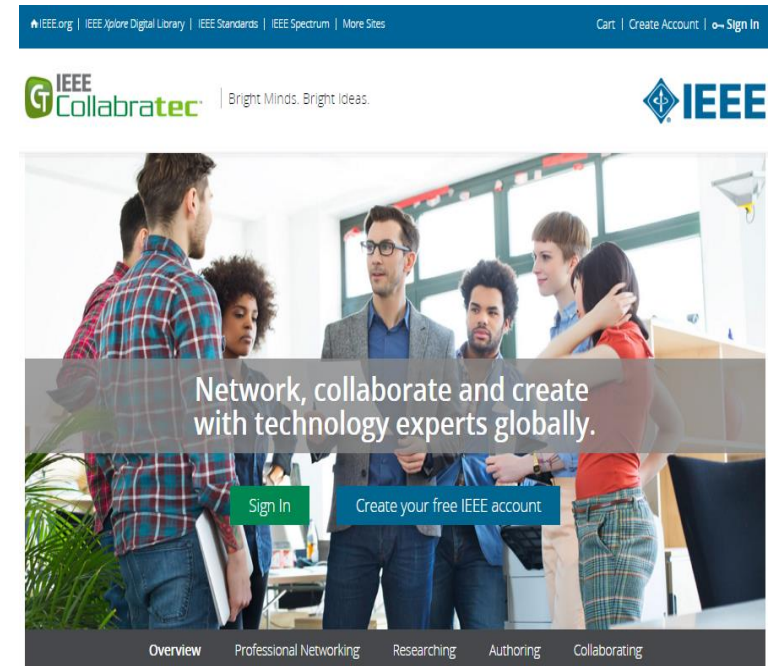


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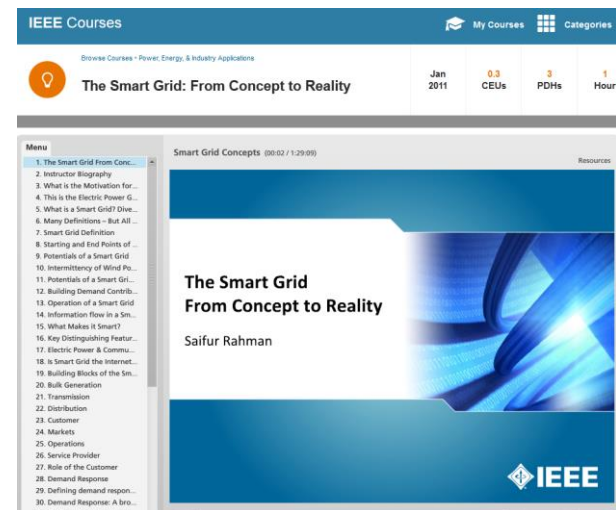
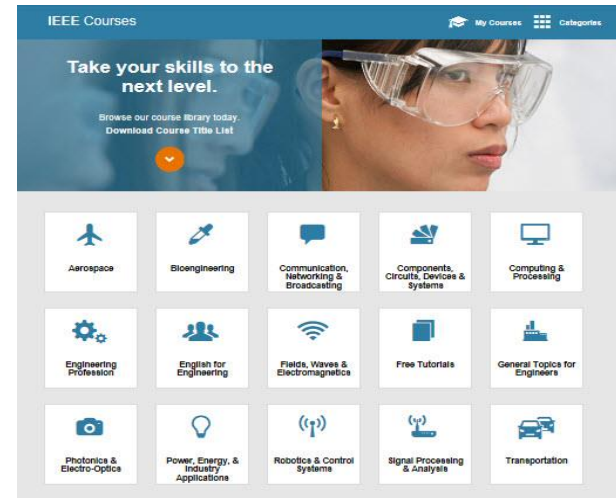
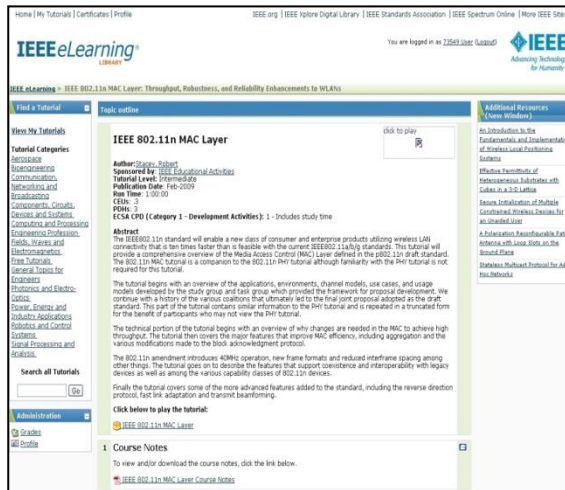
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Robust Design of Adaptive Equalizers

Although equalizers promise to improve the signal-to-noise energy ratio, zero forcing equalizers are derived classically in a deterministic setting minimizing intersymbol interference, while minimum mean square error (MMSE) equalizer solutions are derived in a stochastic context based on quadratic Wiener cost functions. In this paper, we show that it is possible—and in our opinion even simpler—to derive the classical results in a purely deterministic setup, interpreting both equalizer types as least squares solutions. This, in turn, allows the introduction of a simple linear reference model for equalizers, which supports the exact derivation of a family of iterative and recursive algorithms with robust behavior. The framework applies equally to multiuser transmissions and multiple-input multiple-output (MIMO) channels. A major contribution is that due to the reference approach the adaptive equalizer problem can equivalently be treated as an adaptive system identification problem for which very precise statements are possible with respect to convergence. Even some blind channels can be treated under this general framework.

This paper appears in: *Signal Processing, IEEE Transactions on*
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SECTION I INTRODUCTION

The Joint Precision Approach and Landing System (JPALS) is being developed as the next-generation navigation tool that will enable precision approach and landing of U.S. military aircraft using the Global Positioning System (GPS). Variants of JPALS have been studied for use both at terrestrial airfields (Land-Based JPALS) and aboard aircraft carriers at sea (Sea-Based JPALS). In both cases JPALS fulfills three important functions. First, the system communicates final approach segment data that define the reference trajectory for incoming aircraft. Second, the system broadcasts differential GPS corrections that improve navigation accuracy by removing systematic errors from the GPS signal. Third, the system provides warnings of navigation quality degradation for cases of poor GPS satellite geometry, internal system faults, or hazardous external jamming. Given sufficient reliability, these functions will permit automated carrier landings of unmanned aircraft (Fig. 1) and of manned aircraft in foul-weather conditions.

This paper presents the results of a multi-year, multi-institution collaboration to design navigation algorithms for the Sea-Based JPALS mission. A sea-based system introduces numerous challenges not present in a land-based system. Examples of thorny Sea-Based JPALS implementation issues include definition of aircraft approach trajectories for a pitching and rolling landing strip, placement of reference antennas in locations that do not interfere with shipboard operations but that still provide a clear sky view, and compensation for ship flexure in mapping reference antenna locations to the touchdown point.

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Fig. 1. JPALS will enable precision landing for both manned and unmanned aircraft (photo by Jeffrey S. Viano, U.S. Navy).

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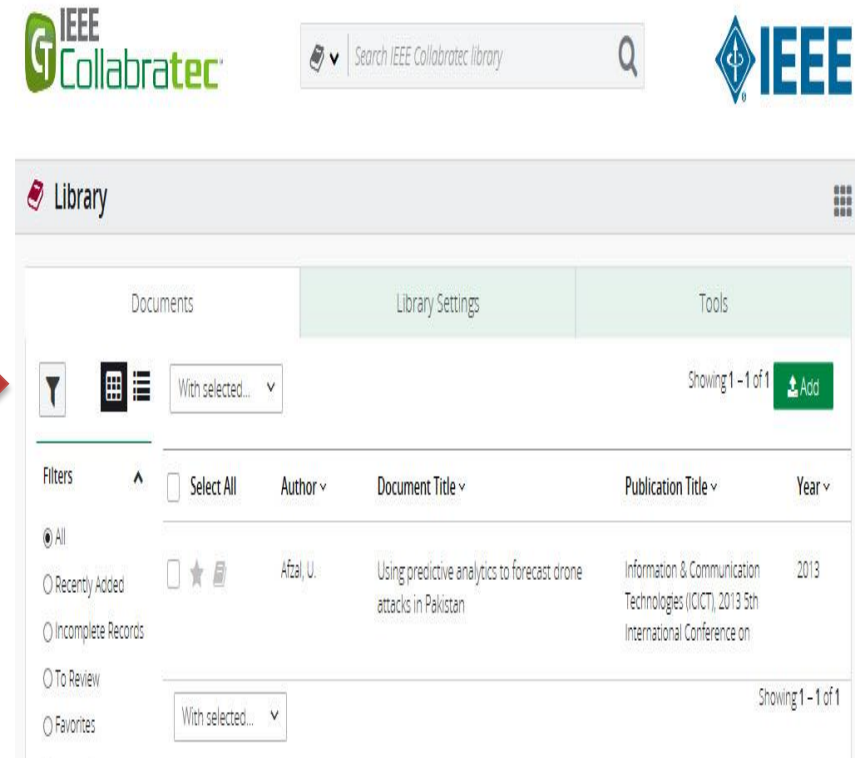
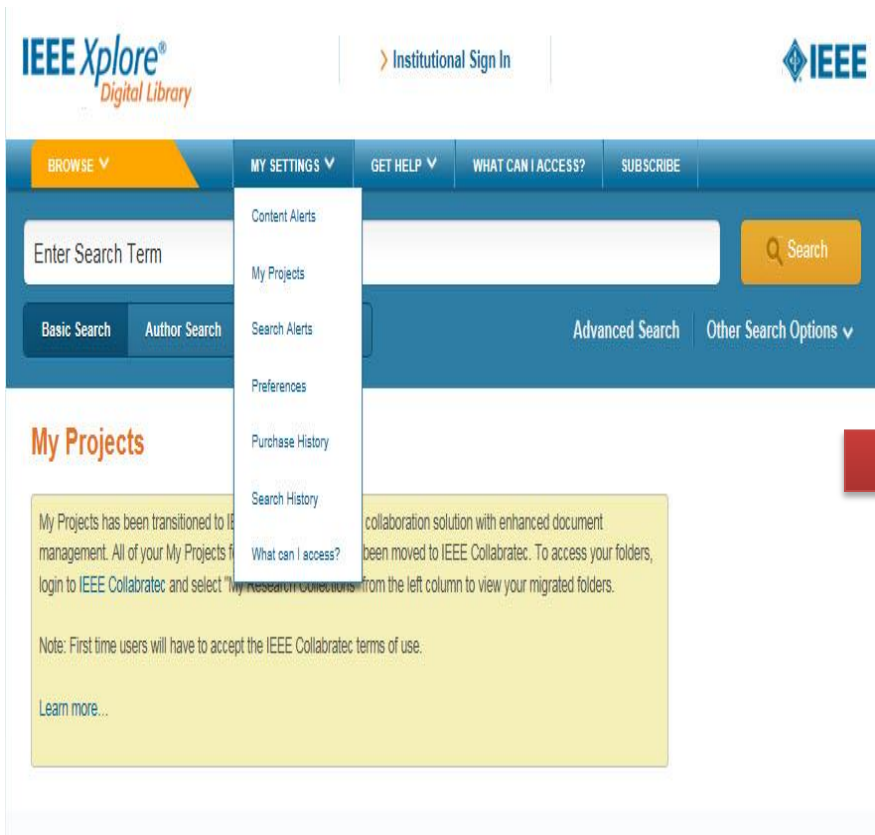
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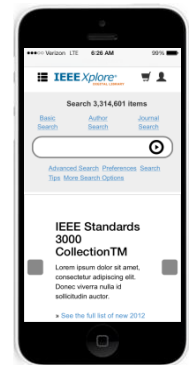
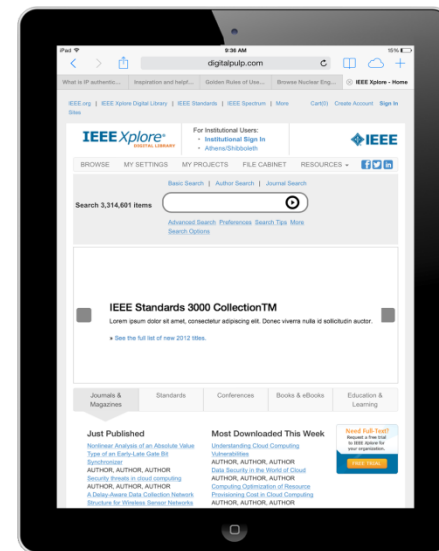
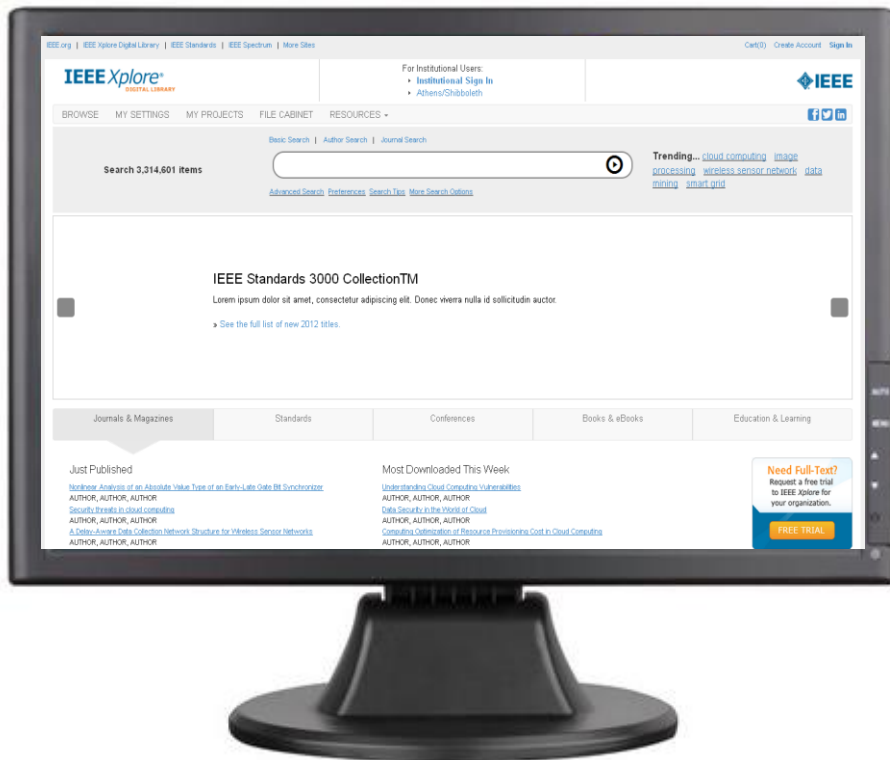
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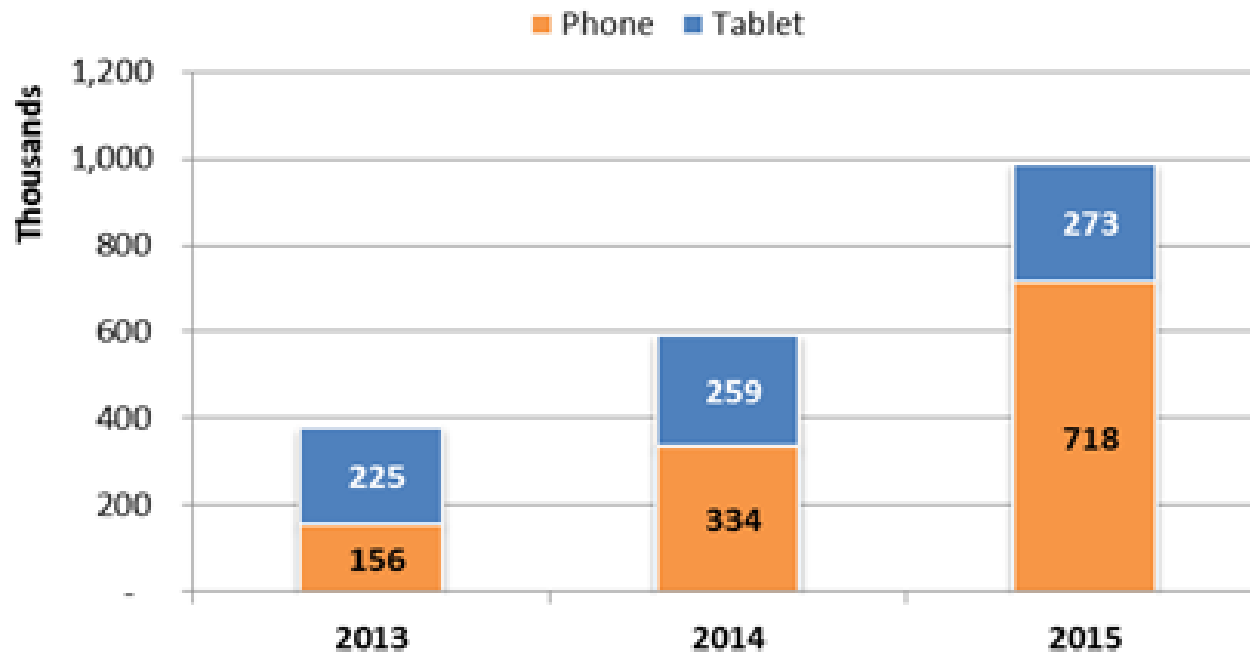
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IEEE 18 - IEEE Standard for Shunt Power Capacitors

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8 Documents

Evolution of the Standard

Active

Approved:

18-2012 - IEEE Standard - IEEE Standard for Shunt Power Capacitors
» Revision of IEEE Std 18-2002 (Revision of IEEE Std 18-1992)

Redline:

18-2012 - IEEE Standard - IEEE Standard for Shunt Power Capacitors
» Revision of IEEE Std 18-2002 (Revision of IEEE Std 18-1992)

Superseded:

18 - 2002 - IEEE Standard - IEEE Standard for Shunt Power Capacitors
» Revision of IEEE Std 18-2002 (Revision of IEEE Std 18-1992)

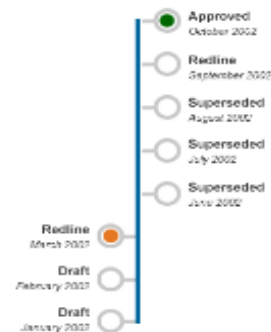
Superseded:

18 - 1992 - IEEE Standard - IEEE Standard for Shunt Power Capacitors
» Revision of IEEE Std 18-2002 (Revision of IEEE Std 18-1992)

Superseded:

18 - 1980 - IEEE Standard - IEEE Standard for Shunt Power Capacitors
» Revision of IEEE Std 18-2002 (Revision of IEEE Std 18-1992)

Standard Timeline



Inactive

Redline:

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Author(s)

Lambert, S.M.; Sch. of Electr. & Electron. Eng., Newcastle Univ., Newcastle upon Tyne, UK; Pickert, V.; Atkinson, D.J.; Huaxia Zhan

Abstract

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Over the last decade various high-capacitance devices have become available in the market such as supercapacitors, ultracapacitors, and recently, Li-ion capacitors. The cell voltage limit of each of these technologies is a small percentage of the system-level voltage so they must, therefore, be connected in series to attain a high voltage. During charging and discharging, manufacturing tolerances between the cells result in voltage mismatch across the stack. Mismatched voltages are an inefficient use of the energy storage medium and can lead to dangerous failures in the cells if voltages exceed safety limits. Transformer-based voltage equalization techniques are the preferred circuit topologies in applications with low system voltage due to simplicity of control and low number of switches. The drawback of these

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Transformer-Based Equalization Circuit Applied to n-Number of High Capacitance Cells

Over the last decade various high-capacitance devices have become available in the market such as supercapacitors, ultracapacitors, and recently, Li-ion capacitors. The cell voltage limit of each of these technologies is a small percentage of the system-level voltage so they must, therefore, be connected in series to attain a high voltage. During charging and discharging, manufacturing tolerances between the cells result in voltage mismatch across the stack. Mismatched voltages are an inefficient use of the energy storage medium and can lead to dangerous failures in the cells if voltages exceed safety limits. Transformer-based voltage equalization techniques are the preferred circuit topologies in applications with low system voltage due to simplicity of control and low number of switches. The drawback of these circuits is the number of isolated windings that are required on a single core. This paper describes for the first time a solution to that problem by using a classical two windings transformer that in principal can be applied to any number of capacitors. This paper describes the operation of the circuit, shows simulation results and practical results based on a prototype with five cells.

This paper appears in: *Power Electronics, IEEE Transactions on*, Issue Date: Feb. 2016, Written by: Lambert, S.M.; Pickert, V.; Atkinson, D.J.; Huaxia Zhan

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High-capacitance devices such as supercapacitors or hybrid capacitors have a high power density and cycle life compared to battery technology. Supercapacitor



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- ☐ 2014 (3,319)
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- ☒ 2012 (1,661)

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- ☐ Journal of Parallel and Distributed Computing (1,017)
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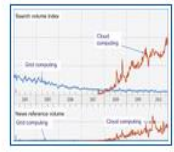
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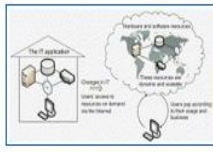
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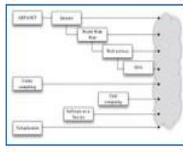
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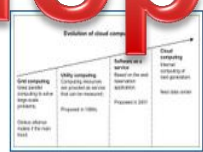
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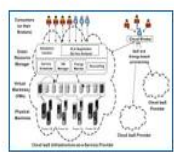
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A method for establishing wireless communication between a transmitter and a receiver in a wireless
Assignment: AT & T IP II LP
US7133380 | US PATENTS | 07-NOV-2006
- ☐ System and method for dynamically assigning channels for wireless packet communications
A method and system for controlling media access in which a paging message is transmitted from a base
Assignment: AT & T IP II LP
US6052594 | US PATENTS | 18-APR-2000
- ☐ System and method for selecting a transmission channel in a wireless communication system that includes an adaptive array
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A high-resolution, close-up photograph of a vibrant green lawn. The grass blades are densely packed and show a natural texture with varying shades of green, from bright lime to deeper forest green. The lighting is even, suggesting a bright, sunny day. The perspective is slightly angled, giving a sense of depth to the field.

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