略語集

単位

baud	1秒間の変調回数
bps	ビット毎秒
T	テスラ（磁束密度）

接頭辞

P	ペタ（10^{15}）
T	テラ（10^{12}＝1,000ギガ）
G	ギガ（10^9＝1,000メガ）
M	メガ（10^6）
μ	マイクロ（10^{-6}）
n	ナノ（10^{-9}）
p	ピコ（10^{-12}）
f	フェムト（10^{-15}）
a	アト（10^{-18}）

2　研究活動

ネットワーク基盤技術

2.1　光ネットワーク技術

ALMA	Atacama Large Millimeter/submillimeter Array
DNR	Domain Name Registry
DQPSK	Differential Quadrature Phase Shift Keying
ECOC	European Conference and Exhibition on Optical Communication
EXAT	Technical Committee on Extremely Advanced Optical Transmission Technologies
FSK	Frequency Shift Keying
HANA	Hierarchical and Automatic Number Allocation for locators
HGW	HIMALIS Gateway
HIMALIS	Heterogeneity Inclusion and Mobility Adaptation through Locator ID Separation
HNR	Host Name Registry
IEC	International Electrotechnical Commission
IEEE	Institute of Electrical and Electronics Engineers
ISP	Internet Service Provider
ITU-T	International Telecommunication Union Telecommunication Standardization Sector
JGN-X	Japan Gigabit Network eXtreme
LSI	Large Scale Integration
OFC	The Optical Fiber Communication Conference and Exhibition
OOK	On Off Keying
OTDM	Optical Time-Division Multiplexing
OTN	Optical Transport Network
PSK	Phase Shift Keying
QAM	Quadrature Amplitude Modulation
SDM	Space-Division Multiplexing
SSMF	Standard Single Mode Fiber
TCAM	Ternary Content Addressable Memory
WDM	Wavelength-Division Multiplexing

2.2　ワイヤレスネットワーク技術

ANSI/TIA	American National Standards Institute/Telecommunications Industry Association
BAN	Body Area Network
DBF	Digital Beam Forming
DPC-OF	Dynamic Parameter Controlled Orthogonal frequency
ECHONET	Energy Conservation & Homecare Netwok
EMC	Electromagnetic Compatibility
FDTD	Finite Difference Time Domain
FPGA	Field Programmable Gate Array
GFSK	Gaussian Frequency Shift Keying
HAPS	High Altitude Platform Station
ICAO	International Civil Aviation Organization
IP	Internet Protocol
ITS	Intelligent Transport Systems
ITU-R	International Telecommunication Union Radiocommunications Sector
LDPC	Low Density Parity Check
LTE	Long Term Evolution
MBH	Multi Beam Horn
MIRAI-SF	Multimedia Integrated Network by Radio Access Innovation（MIRAI）　Simulation Framework
OFDM	Orthogonal Frequency Division Multiplex
OFDMA	Orthogonal Frequency Division Multiple Access
OSI	Open Systems Interconnection
PHY/MAC	physical/Media Access Control
RF	Radio Frequency
RR	Radio Regulations
SPF	Stratospheric Platform
SUN	Smart Utility Network
TDMA	Time Division Multiple Access
UWB	Ultra Wide Band
W-BAN	Wireless BAN
W-CDMA	Wideband Code Division Multiple Access
WINDS	Wideband InterNetworking engineering test and Demonstration Satellite
Wi-SUN	Wireless Smart Utility Network
WLAN	Wireless LAN
WPAN	Wireless Personal Area Network
WRAN	Wireless Regional Area Network
WRC	World Radiocommunication Conference
WSDB	White Space Data Base

2.3　宇宙通信システム技術

16APSK-OFDM	16 Amplitude Phase Shift Keying-Orthogonal Frequency Division Multiplexing
APAA	Active Phased Array Antenna
APEC	Asia-Pacific Economic Cooperation
BER	Bit Error Rate

BPSK	Binary Phase Shift Keying
CCSDS	Consultative Committee for Space Data Systems
COMETS	Communications and Broadcasting Engineering Test Satellite
DBF	Digital Beam Forming
EFM	Engineering Flight Model
EM	Engineering Model
ETS-VIII	Engineering Test Satellite-VIII
FPGA	Field Programmable Gate Array
GbE	Gigabit Ethernet
JGN	Japan Gigabit Network
LD	Laser Diode
LNA	Low Noise Amplifier
OICETS	Optical Inter-orbit Communications Engineering Test Satellite
QPSK	Quadrature Phase Shift Keying
QZS	Quasi-Zenith Satellite
RF	Radio Frequency
RMS	Root Mean Square
SCAT	Support Center for Advanced Telecommunications Technology Research
SDR-VSAT	Super High Data Rate Very Small Aperture Terminal
SLR	Satellite Laser Ranging
SOTA	Small Optical Transponder
SS-TDMA	Satellite Switched Time Division Multiple Access
STICS	Satellite-Terrestrial Integrated mobile Communication Systems
TTD	True Time Delay
VSAT	Very Small Aperture Terminal
WINDS	Wideband InterNetworking engineering test and Demonstration Satellite

2.4 ネットワークセキュリティ技術

ACTIVATE	Active Connection Tracer for Internet Vitality AuTo-Estimation
APAKE	Anonymous Password-based Authenticated Key Exchange
AS	Autonomous System
CPD	Change Point Detector
CRYPTREC	Cryptography Research and Evaluation Committees
CYBEX	Cybersecurity Information Exchange Techniques
DAEDALUS	Direct Alert Environment for Darknet And Livenet Unified Security
DDH	Decisional Diffie-Hellman
GHOST	Global, Heterogeneous, and Optimized Sensing Technology
IAA	I Am Alive
IBE/IBS	Identity-Based Encryption/Identity-Based Signature
IODEF	Incident Object Description Exchange Format
LASDEC	Local Authorities Systems Development Center
LPN	Learning Parity with Noise
NICTER	Network Incident analysis Center for Tactical Emergency Response
NIRVANA	NICTER Real-network Visual ANAlyzer
NONSTOP	NICTER Open Network Security Test-Out Platform

PRINCESS	Proxy Re-encryption with INd-Cca security in Encrypted file Storage System
PUF	Physical Unclonable Function
REGISTA	Risk Evaluation and Guidance on Information Security Technology Application
RFID	Radio Frequency Identification
SIOS	Security Intelligent Operation Studio
SPADE	SPectrum Analysis for Distinction and Extraction of malware features
XPIA	X.509 certificate Public-key Investigation and Analysis system

2.5　新世代ネットワーク技術

API	Application Programming Interface
BYON	Bring Your Own Network
DSN	Declarative Service Networking
GRE	Generic Routing Encapsulation
HANA	Hierarchical Automatic Number Allocation
HIMALIS	Heterogeneity Inclusion and Mobility Adaptation through Locator ID Separation
JGN-X	Japan Gigabit Network eXtreme
KVM	Kernel-based Virtual Machine
NCPS	Network Control Protocol Stack
PIAX	P2P Interactive Agent eXtensions
SCN	Service-Controlled Networking
UNS	Universal Communications, New Generation Networks, Security and Safety for the Ubiquitous NetworkSociety

2.6　テストベッド技術

CPS	Cyber Physical Systems
DCN	Dynamic Circuit Network
E-NNI	External Network-to-Network Interface
GINEW	General Integrated Network Engineering Workbox
GMPLS	Generalized Multi-Protocol Label Switching
IETF	Internet Engineering Task Force
IMS	IP Multimedia Subsystem
JGN	Japan Gigabit Network
PIAX	P2P Interactive Agent eXtensions
RISE	Research Infrastructure for large-Scale network Experiments
SC	Super Computing
SDN	Software Defined Networking
SIP	Session Initiation Protocol
TTC	Telecommunication Technology Committee
VoIP	Voice over Internet Protocol
VPLS	Virtual Private LAN Service

ユニバーサルコミュニケーション基盤技術

2.7　多言語コミュニケーション技術

| AAMT | Asia-Pacific Association for Machine Translation |
| ALAGIN | Advanced Language Information Forum |

BTEC	Basic Travel Expression Corpus
CSJ	Corpus of Spontaneous Japanese
EDR	japanese Electronic Dictionary Research institute,ltd
HMM	Hidden Markov Model
IWSLT	International Workshop on Spoken Language Translation
JLE	Japanese Learner English Corpus
KUI	Knowledge Unifying Initiator
NTCIR	NII Testbeds and Community for Information access Research
PIAX	P2P Interactive Agent eXtensions
WFST	Weighted Finite-State Transducer

2.8　コンテンツサービス基盤技術

DISAANA	DISAster information ANAlyzer
ICSU	International Council for Science
SCN	Service-Controlled Networking
SNS	Social Networking Service
STICKER	Spatio-Temporal Information Clustering and Knowledge ExtRaction
SVM	Support Vector Machine
WISDOM	Web Information Sensibly and Discreetly Ordered and Marshaled

2.9　超臨場感コミュニケーション技術

HRTF	Head-Related Transfer Function
IP	Integral Photography
MSenS	Multi-Sensory Interaction System
MVP	Multiple Vertical Panning

2.10　ヒューマンコミュニケーション技術

ACM	Association for Computing Machinery
ECHONET	Energy Conservation and Homecare Network
GIS	Geographic Information System
HGML	Home Gateway Markup Language
NFC	Near Field Communication
OSGi	Open Services Gateway initiative
PDA	Personal Digital Assistant
RFID	Radio Frequency IDentification
UPnP	Universal Plug and Play

未来 ICT 基盤技術
2.11　脳・バイオ ICT 技術

ATP	Adenosine Triphosphate
BFI	Brain-Function installed Information
BMI	Brain-Machine Interface
DNA	DeoxyriboNucleic Acid
EEG	Electroencephalogram

GFP	Green Fluorescent Protein
HHS	Heart to Heart Science
MEG	Magnetoencephalogra
MRI	Magnetic Resonance Imaging
NIRS	Near-Infrared Spectroscopy
PGC	Phase Gradient Contrast
RNA	RiboNucleic Acid

2.12　ナノ ICT 技術

APD	Avalanche Photo Diode
cps	count per second
CREST	Core Research for Evolutionary Science and Technology
EO	Electro-Optics
HEB	Hot Electron Bolometer
MSM-PD	Metal/Semiconductor/Metal Photo Diode
NA	Numerical Aperture
NC-AFM	Non-Contact Atomic Force Microscopy
NIST	National Institute of Standards and Technology
PC	Photonic Crystal
PMT	Photomultiplier Tube
QKD	Quantum Key Distribution
SET	Single Electron Tunneling
SFQ	Single Flux Quantum
SIS	Superconductor Insulator Superconductor
SOI	Silicon On Insulator
SSPD	Superconducting Single-Photon Detector
STM	Scanning Tunneling Microscope

2.13　量子 ICT 技術

ESP	Encapsulating Security Payload
IPsec	Security Architecture for Internet Protocol
MAC	Media Access Control
QKD	Quantum Key Distribution
SECOQC	Secure Communication based on Quantum Cryptography

2.14　超高周波 ICT 技術

CW	Continuous Wave
FCC	Federal Communications Commission
FIS	Far Infrared Surveyor
HEMT	High Electron Mobility Transistor
LOフォノン	Longitudinal Optical phonon
MZ	Mach-Zender
NPR	Nonlinear Polarization Rotation
SMF	Single Mode Fiber

NICT National Institute of Information and Communications Technology

SOLT	Short-Open-Load-Through
SQUID	Superconducting Quantum Interference Device
sUWB	super Ultra Wideband
TRL	Thru-Reflect-Line
TDS	Time Domain Spectroscopy
UWB	Ultra Wide Band

電磁波計測基盤技術

2.15 電磁波センシング技術

ACE	Advanced Composition Explorer
AE	Auroral Electrojet
AOSWA	Asia-Oceania Space Weather Alliance
BBM	Bread Board Model
BSMILES	Balloon-borne Superconducting Submillimeter-Wave Limb-Emission Sounder
CFRP	Carbon Fiber Reinforced Plastics
COBRA	CRL Okinawa Bistatic polarimetric Radar
CPR	Cloud Profiling Radar
EAR	Equatorial Atmosphere Radar
EarthCARE	Earth Clouds, Aerosols and Radiation Explorer
GAIA	Ground-to-topside model of Atmosphere and Ionosphere for Aeronomy
GPM	Global Precipitation Measurement
HEB	Hot Electron Bolometer
HiRAS	Hiraiso Radio Spectrograph System
HTV	H-II Transfer Vehicle
IGY	International Geophysical Year
JEM	Japanese Experiment Module
Pi-SAR	Polarimetric and Interferometric SAR
PR	Precipitation Radar
QCL	Quantum Cascade Laser
RapidMAG	Russian Auroral and Polar Ionospheric Disturbance Magnetometers
RASS	Radio-Acoustic Sounding System
SALMON	System for Alaska Middle atmosphere Observation data Network
SAR	Synthetic Aperture Radar
SEALION	South-East Asia Low latitude Ionosphere Observation Network
SIS	Superconductor Insulator Superconductor
SMILES	Superconducting Submillimeter-Wave Limb-Emission Sounder
SPIDER	Special Polarimetric Ice Detection and Explication Radar
TRMM	Tropical Rainfall Measuring Mission
WINDAS	WInd profiler Network and Data Acquisition System

2.16 時空標準技術

ACES	Atomic Clock Ensemble in Space
APMP	Asia Pacific Metrology Program
ASNITE	Accreditation System of National Institute of Technology and Evaluation

BIPM	Bureau International des Poids et Mesures（フランス語）
CCTF	Consultative Committee for Time and Frequency
CMC	Calibration and Measurement Capabilities
CSO	Cryogenic Sapphire Oscillator
DPN	Dual Pseudo Random Noises
ESA	European Space Agency
EM	Engineering Model
GLONASS	Global Navigation Satellite System（ロシアのシステム）
GNSS	Global Navigation Satellite System
GPSCP	Global Positioning System Carrier-Phase
IERS	International Earth Rotation and Reference Systems Service
IVS	International VLBI Service for Geodesy and Astronomy
J-PARC	Japan Proton Accelerator Research Complex
JIS	Japanese Industrial Standards
NMI	National Metrology Institute
NTP	Network Time Protocol
PPP	Precise Point Positioning
SLR	Satellite Laser Ranging
SNTP	Simple Network Time Protocol
sps	samples per second
TCTF	Technical Committee on Time and Frequency
UT1	Universal Time 1
UTC	Coordinated Universal Time
VCO	Voltage Controlled Oscillator
VLBI	Very Long Baseline Interferometry
VSI	VLBI Standard Interface
VSSP	Versatile Scientific Sampling Processor
WRC	World Radiocommunication Conference

2.17　電磁環境技術

APD	Amplitude Probability Distribution
CDV	Committee Drafts for Vote
CISPR	International Special Committee on Radio Interference
EMC	Electromagnetic Compatibility
EMI	Electro Magnetic Interference
EPIRB	Emergency Position Indicating Radio Beacon
FDIS	Final Draft International Standard
FFT	Fast Fourier Transform
GPU	Graphics Processing Unit
GTEM	Giga-hertz Transverse Electromagnetic
IEC	International Electrotechnical Commission
ISM	Industrial Scientific and Medical
LPDA	Log-Periodic Dipole Array antenna
MRI	Magnetic Resonance Imaging
PLC	Power Line Communication

SAR	Specific Absorption Rate	
SI	International System of Units	
TEM	Transverse Electromagnetic	
UWB	Ultra Wide Band	
WPT	Wireless Power Transfer	

新たな動き

2.18 新たな動き

CODATA	Committee on Data for Science and Technology
DOI	Digital Object Identifier
FAGS	Federation of Astronomical and Geophysical Data Analysis Services
ICSU	International Council for Science
IGY	International Geophysical Year
IPO	International Programme Office
WDC	World Data Centre
WDS	World Data System
WDS-SC	WDS Scientific Committee

3 委託研究等

BER	Bit Error Rate
ITS	Intelligent Transport Systems
LF	Low Frequency
P2P	Peer to Peer
ROI	Region Of Interest
SVR	Scalable Virtual Reality
YRP	Yokosuka Research Park

6 国際連携等

3GPP	Third Generation Partnership Project
ASTAP	Asia-Pacific Telecommunity Standardization Program
BAN	Body Area Network
ETSI	European Telecommunications Standards Institute
IEC	International Electrotechnical Commission
IEEE	Institute of Electrical and Electronics Engineers
IETF	Internet Engineering Task Force
ISO	International Organization for Standardization
ITU-R	International Telecommunication Union Radiocommunications Sector
ITU-T	International Telecommunication Union Telecommunication Standardization Sector
MOU	Memorandum of Understanding
NGN	Next Generation Network