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Control and Adaptation in Telecommunication Systems

Mathematical Foundations

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Abbreviations

AAA	adaptive antenna array
ACS	access control system
AIC	adaptive interference compensator
ALN	adaptive linear neuron
A-RACF	Access Resource And Admission Control Function
BI	business intelligence
BM	Boltzmann machine
BML	Business Management Layer
BPM	business process management
CAC	Call Admission Control
CC	cloud computing
CBQ	class-based queuing
CDMA	code division multiple access
CMIP	Common Management Information Protocol
CPN	coloured Petri net
CWTA	conscience winner takes all
DBMS	database management system
DCN	data-communication network
DM	data manager
DPC	data processing center
DSS	decision support system
EDA	event-driven architecture
EMC	electromagnetic compatibility
EML	Element Management Layer
FAB	fulfilment, assurance and billing
ETSI	European Telecommunications Standard Institute
FSM	finite state machine
GII	global informational infrastructure
IaaS	Information - as - a - Service
IP	Internet protocol
ISO	International Organization for Standardization

IT	information technology
ITSM	IT service management
KBF	Kalman-Busy filter
ITU	International Telecommunications Union
LAN	local area network
LSA	link state advertisement
LTR	logical-transformational rules
MAN	metropolitan area network
MIB	Management Information Base
MIMO	multi-input multi-output
MLC	maximum likelihood criterion
MPC	maximum probability criterion
MOF	Microsoft Operations Framework
MS	management system
MMSD	minimum mean-square deviation
NACF	network addition control function
NGN	Next Generation Networks
NEL	Network Element Layer
NML	Network Management Layer
NMS	network management system
NN	neural networks
NOS	network operating system
OSPF	open shortest path first protocol
PBNM	policy-based network management
PMD	people making decisions
PN	Petri net
PSR	policy system rules
QoS	quality of service
RACF	Resource and Admission Control Function
RACS	Resource and Admission Control Sub-System
RED	Random Early Detection
RM	Robbins-Monro procedure
RMLP	recurrent multilayer perceptron
RMON	Remote Network Management Protocol Information Base
RSVP	resource reservation protocol
SCF	service control function
SLA	Service Level Agreement
SML	Service Management Layer
SNMP	Simple Network Management Protocol
SOA	service-oriented architecture
SOFM	self-organizing feature map
SPDF	Service-Based Policy Decision Function
TCP	transmission control protocol
TCS	telecommunication systems
TM	Turing machine

TMN	telecommunication management network
TSP	travelling salesman problem
VQ	vector quantization
WFQ	weighted fair queuing
WAN	wide area network
WTA	winner takes all
WV	weight vector