

2021 Inspec Thesaurus and Classification Code Changes

About Thesaurus and Classification Codes

The Inspec Thesaurus and Classification scheme are valuable search tools to help you refine your search results.

The Thesaurus contains over 10 000 Index Terms and is a terminology based subject index. The Index Terms are themselves interrelated to allow you either to find the most exact term(s) to add to your search or to broaden out your search with additional terms.

The Inspec Classification is a subject categorisation scheme containing over 3600 Classification Codes. These codes can be used to specify a subject area without needing to specify all the sub-concepts that might be used to define it, and to restrict the results of Index Term searches which may cross subject areas.

About Revisions

Inspec regularly assesses and updates these taxonomies in line with advances in scientific and technological terminology and changes in the focus of research.

New Classification Codes may be added to allow access to formerly hard to access concepts and codes may be amended to reflect changes in terminology or to make explicit indexing practice. For 2021, 34 new codes are being added and 4 codes are being retired.

Similarly new Index Terms may be introduced to allow new concepts to be specified, to subdivide growing research areas, or to match changes in the terminology of the material being indexed. 25 new Index Terms are being introduced for 2021. In addition, 107 concepts are being added which are synonyms, or explain, and lead to the Index Terms to use for those concepts. There are also a number of corrections and additions to the inter-term and code-term relationships. There are no Index Terms being retired.

The improved Thesaurus and Classification tools containing all these changes will be available in January in time for the first update of 2021.

Changes for 2021

If your Saved Search (or Alert) contains Full Terms or Classification Codes from the following lists, you may wish to consider the related new concepts for addition into your strategy.

List of New Classification Codes linked to Pre-2021 Practice

Pre 2021 Code	New Code	New Code Text
A8115G	A8115E	Atomic layer deposition
A8115H	A8115E	Atomic layer deposition
A8230	A8230M	Oxidation, reduction and redox reactions (chemistry aspects)
A8245	A8245B	Electrocatalysis
A8250	A8250H	Photocatalysis
B0240	B0240T	Time series
B0240	B0240V	Regression analysis
B0240	B0240R	Error statistics (inc. error probability)

B0240Z	B0240P	Principal component analysis
B0520D	B0520E	Atomic layer deposition
B0520F	B0520E	Atomic layer deposition
B2520M	B2520K	Ternary and quaternary semiconductors
B2520M	B2520J	Organic semiconductors
B2520M	B2520H	III-VI and IV-VI semiconductors
B8390	B8385	Power filters
B8470	B8465	Storage in electrical energy
C1140Z	C1140P	Principal component analysis
C1140Z	C1140R	Error statistics (inc. error probability)
C1140Z	C1140T	Time series
C1140Z	C1140V	Regression analysis
C5290	C6263	Reinforcement learning
C5290	C6260	Machine learning (artificial intelligence)
C5290	C6262	Unsupervised learning
C5290	C6266	Other learning models (inc. Naive Bayes)
C5290	C6264	Neural nets
C5290	C6261	Supervised learning
C6170	C6210	Knowledge based systems
C6170	C6200	Artificial intelligence software and techniques
C6170K	C6220	Knowledge acquisition
C6170K	C6240	Knowledge verification
C6170K	C6230	Knowledge representation
C6170K	C6261	Supervised learning
C6170K	C6220D	Data mining
C6170K	C6262	Unsupervised learning
C6170K	C6250	Reasoning and inference techniques
C6170K	C6263	Reinforcement learning
C6170K	C6260	Machine learning (artificial intelligence)
C6170K	C6266	Other learning models (inc. Naive Bayes)
C6170K	C6265	Support vector machines
C6170T	C6220	Knowledge acquisition
E1520Z	E1520R	Three-dimensional printing
E2180Z	E2180H	Adhesion (mechanical engineering)

List of New Index Terms Linked to Pre-2021 Terms

Pre 2021 Index Term	Relationship	New Index Term
5G mobile communication	Related term	nonorthogonal multiple access
access protocols	Narrow term	nonorthogonal multiple access
aerospace control	Related term	military control
aerospace robotics	Related term	military robotics
agricultural products	Related term	food security
agriculture	Narrow term	animal feed
agriculture	Related term	food security

AI chips	Related term	hardware accelerators
air pollution	Related term	plastic pollution
aircraft control	Related term	military control
amperometric sensors	Related term	wearable sensors
ant colony optimisation	Related term	metaheuristics
application specific integrated circuits	Related term	hardware accelerators
aquaculture	Related term	plastic pollution
aquaculture	Narrow term	animal feed
atmospheric electricity	Related term	electrostatic discharge protection
automatic frequency control	Related term	ring oscillators
automobiles	Related term	automotive control
automotive components	Related term	automotive control
automotive electronics	Related term	automotive control
automotive engineering	Narrow term	automotive control
autonomous aerial vehicles	Related term	military control
autonomous aerial vehicles	Related term	military robotics
autonomous underwater vehicles	Related term	military control
autonomous underwater vehicles	Related term	military robotics
belief networks	Related term	deep learning (artificial intelligence)
biomedical equipment	Related term	wearable sensors
biomedical telemetry	Related term	wearable sensors
biosensors	Related term	wearable sensors
boats	Related term	unmanned surface vehicles
body sensor networks	Related term	wearable sensors
carcinotrons	Related term	ring oscillators
cellular radio	Related term	nonorthogonal multiple access
chemical sensors	Related term	wearable sensors
Chua's circuit	Related term	ring oscillators
cloud computing	Related term	virtual power plants
command and control systems	Related term	military control
computational complexity	Related term	graph drawing
computational geometry	Related term	graph drawing
computer software	Narrow term	soft sensors
computerised monitoring	Related term	soft sensors
contracts	Related term	blockchains
convolutional neural nets	Related term	deep learning (artificial intelligence)
crops	Related term	animal feed
cryptocurrencies	Related term	blockchains

cryptography	Narrow term	blockchains
customer relationship management	Related term	chatbots
customer services	Related term	chatbots
data analysis	Related term	data fusion
data fusion	Related term	soft sensors
data handling	Narrow term	data fusion
data integration	Related term	data fusion
data privacy	Related term	blockchains
data visualisation	Narrow term	graph drawing
distributed databases	Narrow term	blockchains
distributed power generation	Narrow term	virtual power plants
distributed sensors	Related term	wearable sensors
earthing	Related term	electrostatic discharge protection
ecology	Related term	plastic pollution
electric breakdown	Related term	electrostatic discharge protection
electric charge	Related term	electrostatic discharge protection
electric current	Narrow term	inrush current
electric current control	Related term	inrush current
electric current measurement	Related term	inrush current
electric fields	Related term	inrush current
electric fields	Related term	electrostatic discharge protection
electric potential	Related term	electrostatic discharge protection
electric sensing devices	Related term	wearable sensors
electrical faults	Related term	electrostatic discharge protection
electrostatic discharge	Narrow term	electrostatic discharge protection
embedded systems	Related term	hardware accelerators
emergency management	Related term	food security
environmental factors	Related term	food security
environmental monitoring (geophysics)	Related term	plastic pollution
evolutionary computation	Related term	metaheuristics
failure analysis	Related term	electrostatic discharge protection
feature extraction	Related term	deep learning (artificial intelligence)
field programmable gate arrays	Related term	hardware accelerators
financial data processing	Related term	blockchains
food packaging	Related term	plastic pollution

food products	Related term	food security
food safety	Related term	plastic pollution
force sensors	Related term	wearable sensors
free-space optical communication	Related term	nonorthogonal multiple access
frequency stability	Related term	ring oscillators
frequency synthesizers	Related term	ring oscillators
fuzzy systems	Related term	soft sensors
genetic algorithms	Related term	metaheuristics
graph theory	Related term	graph drawing
graphics processing units	Related term	hardware accelerators
graphs	Related term	graph drawing
helicopters	Related term	military control
human computer interaction	Related term	chatbots
humidity sensors	Related term	wearable sensors
image classification	Related term	deep learning (artificial intelligence)
image fusion	Related term	data fusion
image segmentation	Related term	deep learning (artificial intelligence)
image sensors	Related term	wearable sensors
inductive sensors	Related term	wearable sensors
industrial pollution	Related term	plastic pollution
infrared detectors	Related term	wearable sensors
integrated circuit reliability	Related term	electrostatic discharge protection
integrated circuit technology	Related term	electrostatic discharge protection
intelligent sensors	Related term	wearable sensors
intelligent sensors	Related term	soft sensors
intelligent transportation systems	Related term	automotive control
interactive systems	Related term	chatbots
Internet of Things	Related term	blockchains
jitter	Related term	ring oscillators
Kalman filters	Related term	soft sensors
klystrons	Related term	ring oscillators
knowledge representation	Related term	graph drawing
land pollution	Related term	plastic pollution
land use	Related term	food security
LC circuits	Related term	ring oscillators
learning (artificial intelligence)	Narrow term	deep learning (artificial intelligence)
learning (artificial intelligence)	Related term	chatbots
learning (artificial intelligence)	Related term	soft sensors

learning systems	Related term	deep learning (artificial intelligence)
load flow control	Related term	load monitoring
load forecasting	Related term	load monitoring
load management	Narrow term	load monitoring
logic gates	Related term	ring oscillators
magnetic materials	Narrow term	superparamagnetic materials
magnetic sensors	Related term	wearable sensors
magnetic structure	Related term	spin liquids (magnetism)
magnetrons	Related term	ring oscillators
manufactured products	Related term	animal feed
marine control	Related term	military control
marine control	Related term	unmanned surface vehicles
marine engineering	Related term	unmanned surface vehicles
marine navigation	Related term	unmanned surface vehicles
marine pollution	Related term	plastic pollution
marine robots	Narrow term	unmanned surface vehicles
masers	Related term	ring oscillators
mathematics computing	Related term	graph drawing
microprocessor chips	Narrow term	hardware accelerators
microsensors	Related term	wearable sensors
microwave detectors	Related term	wearable sensors
military aircraft	Related term	military control
military aircraft	Related term	military robotics
military computing	Related term	military control
military equipment	Related term	military control
military systems	Narrow term	military control
military vehicles	Related term	military control
military vehicles	Related term	military robotics
MIMO communication	Related term	nonorthogonal multiple access
missile control	Broader term	military control
mixers (circuits)	Related term	ring oscillators
mobile robots	Related term	military robotics
monitoring	Narrow term	load monitoring
motion sensors	Related term	wearable sensors
multi-access systems	Narrow term	nonorthogonal multiple access
multivibrators	Related term	ring oscillators
municipal solid waste	Related term	plastic pollution
nanosensors	Related term	wearable sensors
natural language interfaces	Narrow term	chatbots
natural language processing	Related term	chatbots
negative resistance	Related term	ring oscillators

neural nets	Narrow term	deep learning (artificial intelligence)
neural nets	Related term	chatbots
neural nets	Related term	soft sensors
nonelectric sensing devices	Related term	wearable sensors
observers	Related term	soft sensors
optical fibre communication	Related term	nonorthogonal multiple access
optical sensors	Related term	wearable sensors
optimisation	Narrow term	metaheuristics
oscillators	Narrow term	ring oscillators
paramagnetic materials	Related term	superparamagnetic materials
paramagnetic resonance	Related term	superparamagnetic materials
paramagnetism	Related term	superparamagnetic materials
particle swarm optimisation	Related term	metaheuristics
peer-to-peer computing	Related term	blockchains
phase locked loops	Related term	ring oscillators
photodetectors	Related term	wearable sensors
plasma materials processing	Narrow term	spark plasma sintering
plastic products	Related term	plastic pollution
plastics	Narrow term	plastic pollution
pollution	Narrow term	plastic pollution
powder technology	Related term	spark plasma sintering
powders	Related term	spark plasma sintering
power consumption	Related term	load monitoring
power engineering computing	Related term	virtual power plants
power system control	Related term	load monitoring
power system control	Related term	virtual power plants
power system management	Related term	virtual power plants
power system measurement	Related term	load monitoring
pressure sensors	Related term	wearable sensors
process control	Related term	soft sensors
process monitoring	Related term	soft sensors
production engineering computing	Related term	soft sensors
protection	Narrow term	electrostatic discharge protection
radiofrequency interference	Related term	nonorthogonal multiple access
radiotelemetry	Related term	wearable sensors
reconfigurable architectures	Related term	hardware accelerators
recurrent neural nets	Related term	deep learning (artificial intelligence)
remote sensing	Related term	data fusion
remotely operated vehicles	Narrow term	unmanned surface vehicles
resonators	Related term	ring oscillators

river pollution	Related term	plastic pollution
road traffic control	Related term	automotive control
road vehicles	Related term	automotive control
robots	Narrow term	military robotics
SCADA systems	Related term	load monitoring
search problems	Related term	metaheuristics
semiconductor device reliability	Related term	electrostatic discharge protection
sensor arrays	Related term	wearable sensors
sensor fusion	Related term	wearable sensors
sensor fusion	Related term	data fusion
sensor fusion	Related term	soft sensors
sensor placement	Related term	wearable sensors
sensors	Related term	soft sensors
sensors	Narrow term	wearable sensors
ships	Related term	military control
ships	Related term	military robotics
ships	Related term	unmanned surface vehicles
signal processing	Related term	data fusion
simulated annealing	Related term	metaheuristics
sintering	Narrow term	spark plasma sintering
social networking (online)	Related term	chatbots
social sciences	Related term	graph drawing
socio-economic effects	Narrow term	food security
spin dynamics	Related term	spin liquids (magnetism)
spin fluctuations	Related term	spin liquids (magnetism)
spin glasses	Related term	spin liquids (magnetism)
spin systems	Narrow term	spin liquids (magnetism)
static electrification	Related term	electrostatic discharge protection
supervised learning	Related term	deep learning (artificial intelligence)
supply and demand	Related term	food security
supply chain management	Related term	food security
supply chains	Related term	food security
sustainable development	Related term	food security
system-on-chip	Related term	hardware accelerators
tactile sensors	Related term	wearable sensors
temperature sensors	Related term	wearable sensors
traffic engineering computing	Related term	automotive control
transducers	Related term	wearable sensors
transport control	Related term	military control
triboelectricity	Related term	electrostatic discharge protection
tuning	Related term	ring oscillators

underwater vehicles	Related term	military control
underwater vehicles	Related term	military robotics
unsupervised learning	Related term	deep learning (artificial intelligence)
virtual instrumentation	Related term	soft sensors
voltage-controlled oscillators	Related term	ring oscillators
waste management	Related term	plastic pollution
water pollution	Related term	plastic pollution
weapons	Related term	military control
weapons	Related term	military robotics
wearable antennas	Related term	wearable sensors
wearable computers	Related term	wearable sensors
wearable robots	Related term	wearable sensors
wearable robots	Related term	military control
wearable robots	Related term	military robotics
Web sites	Related term	chatbots
wireless sensor networks	Related term	wearable sensors
wireless sensor networks	Related term	data fusion

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