

Computer Vision & Image Processing

- 000 Image Generation & Segmentation
- 001 Face & Fingerprint Recognition
- 002 Multimodal Vision & Transformer
- 003 Object Detection & Classification
- 004 Mapping & Geospatial Analysis

#### Natural Language Processing

- 010 Text to Text Transformer
- 011 Knowledge Graphs & Reasoning

ech Recognition & Audio Processing

- 020 Music & Acoustic Modeling
- 021 Emotion & Cognition in Audio
- 022 Speech Recognition

Biomarkers for Health & Performance

- 030 Clinical Decision Support
- 031 Human Computer Interaction

Machine Learning Foundations

- 040 Supervised Learning
- 041 Neural Network Architectures
- 042 SVM & Decision Tree 043 Probabilistic Modeling & Optimization
- 044 Unsupervised Learning
- 045 Unsupervised Learning

### Biomedical & Health Science

Medical Imaging & Radiology

- 100 Musculoskeletal Imaging
- 101 Neuroimaging & Imaging Physics
- Cancer Detection & Screening
- 103 Disease Diagnostics

Neuroscience & Mental Health

- 110 Neuroscience
- 111 Knowledge Graphs & Reasoning

#### Clinical Informatics & Public Health

- 120 Cardiovascular Risk Modeling
- Treatment Response & Risk Prediction
- Epidemiological Forecasting & Policy
- 123 Human-Centered Medical AI Systems
- 124 Clinical Decision Support

# Molecular Biology & Drug Discovery

- 130 Molecular Biology
- 131 Drug Discovery

Microbial and Immune Systems Biology

- 140 Infectious Disease & Immunology
- 141 Microbial Ecosystems

## Genetics & Genomics

- 040 Cancer Genomics
- 041 Gene Regulation
- 042 Mutation & Evolutionary Genetics
- 043 Organ Physiolog

#### Social Sciences

Education & Learning Science

- 200 Learning & Performance Analytics
- 201 Teaching & Curriculum Design
- 202 Learning Psychology & Motivation

#### Digital Media & Communication

- 210 Content Integrity & Safety
- 211 Social Media & Public Discourse
- Sentiment Mining & Analysis 213 Dialogue & Conversational AI

### Politics & Governance

- 220 International Politics & Law
- 221 Science Policy & Knowledge Network 222 Game Theory & Decision Making

# Finance & Stock Market

- 230 Algorithmic Trading
- 231 Digital Financial Services 232 Macroeconomic Financial Policy
- Business & Management
- 240 Risk Analytics & Decision Modeling
- 241 Smart Manufacturing
- 242 Organizational Performance
- 243 Enterprise Digitization
- 244 Digital Marketing
- 245 Profiling & Personalization

250 Sustainable Development

## Ethical & Creative AI

- 260 Artificial Cognition & Ethics
- 261 Digital Art

251 Tourism

262 Virtual Reality

# Natural Sciences

- Climate & Hydrology
- 300 Tectonics & Geology
- 301 Topography & Earth-Observation
- 302 Hydrology & Marine Science
- 303 Ecosystem Ecology
  304 Climate & Atmospheric Prediction

#### Material Science

- 310 Flow, Wind & Heat Modeling
- 311 Material Strength & Fabrication
- 312 Polymers, Photonics & Biomaterials

#### Energy & Thermodynamics

- 320 Petroleum Mapping & Extraction
- 321 Environmental Engineering

#### Agriculture & Forestry

- 330 Forest Ecosystems
- 331 Soil & Microbiome Monitoring
- 332 Crop Disease & Species Classifier
- 333 Livestock & Veterinary Science 334 Agriculture & Yield Optimization

#### Astrophysics & Quantumphysics

- 340 Astrophysics
- 341 Computational Quantum Systems
- 342 Particle & Nuclear Physics

#### Neuromorphic Hardware Accelerators

- 350 Neuromorphic Computing
- 351 Circuit Architecture for Neural Systems

## Construction & City Planning

- 360 Construction Technology
- 361 Mobility & City Planning

# Engineering & Applied Sciences

- Cybersecurity & Privacy
- 400 Cybersecurity
- 401 Blockchain & Cryptography 402 Hardware - Software Interaction

# IoT & Edge Computing

- 410 Wireless Communications
- 411 Edge Computing
- 412 Cloud & Distributed Systems 413 IoT Devices & Sensors

# Anomaly & Fault Detection

- 420 Structural Health Monitoring
- 421 Anomaly Detection
- 422 Fault Detection

#### Energy Technologies

- 430 NEV & Battery Health
- 431 Power Asset Monitoring
- 432 Smart Grid Analytics & Optimization
- 433 Energy System Modeling 434 Renewables & Grid Optimization

# Autonomous Mobility

- 440 Autonomous Driving
- 441 Traffic Modeling
- 442 Networked Routing

#### Robotics & Mechatronics

- 450 Navigation & Path Planning
- 451 Embodied Robotics 452 Task Scheduling & Decision Making
- 453 Control Systems & Fuzzy Logic