

VLS

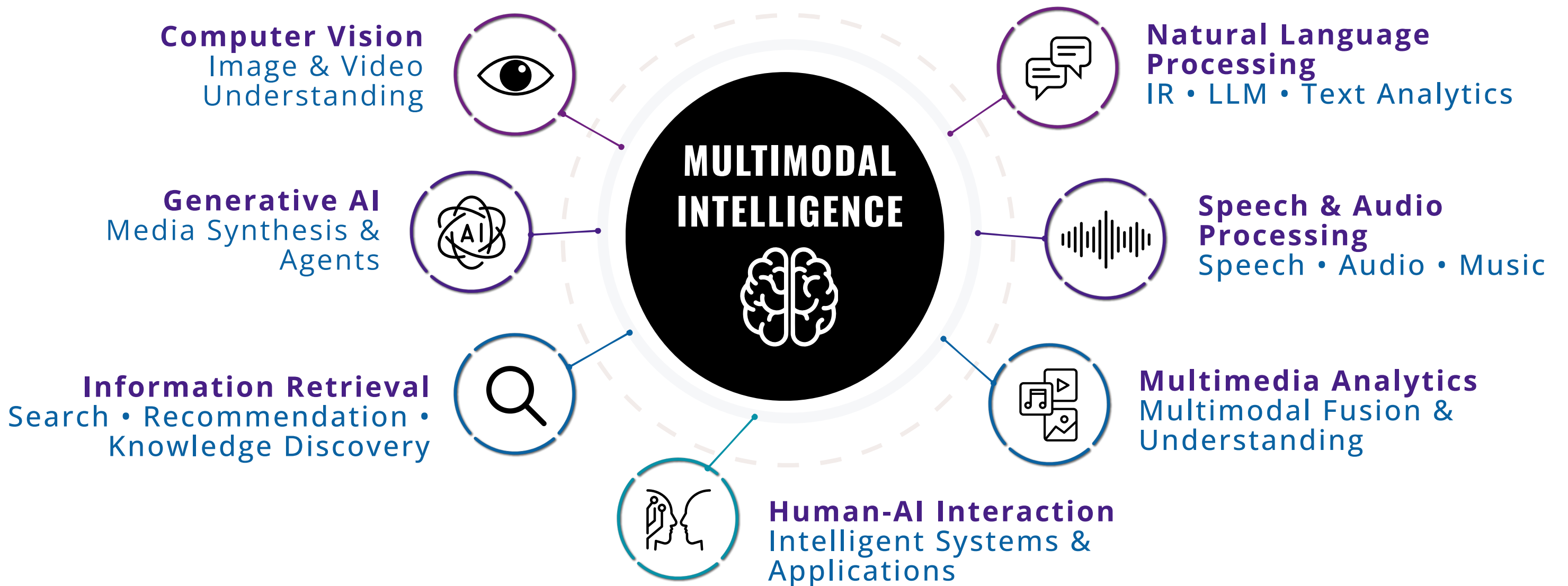
VISION • LANGUAGE • SOUND
RESEARCH GROUP

Advancing Multimodal AI for Society

VLS explores how machines perceive and communicate through vision, language and sound. We develop multimodal AI solutions with real-world impact through research, collaboration and industry engagement.



OUR MULTIMODAL AI ECOSYSTEM

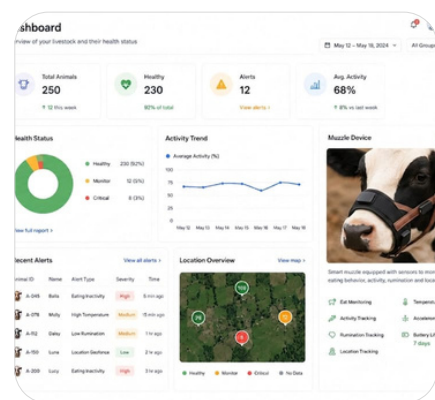


FEATURED PROJECTS



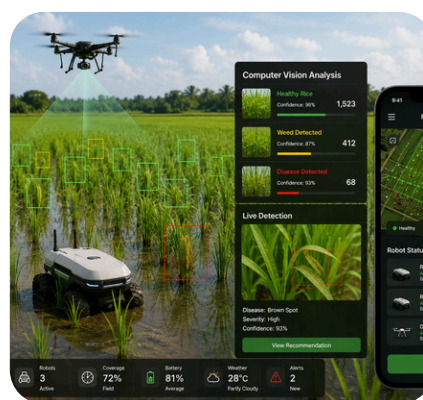
Tuberculosis Lung Cavity Segmentation

Precision AI segmentation of tuberculosis lung cavities for improved diagnosis and treatment planning.



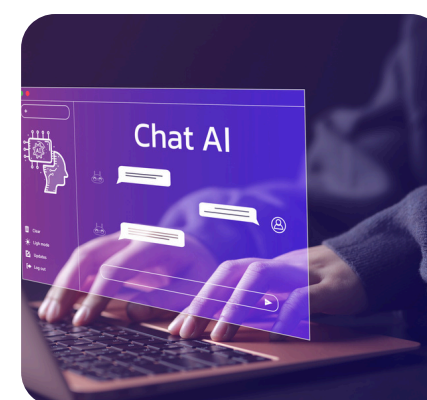
Smart Integrated Livestock Management

AI-based livestock management system for animal identification and real-time behaviour monitoring.



FARMAR for Agricultural Resilience

Harnessing intelligent perception and autonomy to drive next-generation smart farming.



Retrieval-Augmented Generation in LLMs

Mitigation of hallucinations by grounding responses in external, verifiable sources.



CikguADaBot: A Chatbot to Teach Data Analytics

A Malay-based conversational AI to support teaching and learning of basic data analytics.

OUR RESEARCH PILLARS



INTELLIGENT VISION SYSTEMS

- Image processing
- Computer vision
- Video analytics
- Pattern recognition
- Visual understanding



LANGUAGE & KNOWLEDGE INTELLIGENCE

- NLP
- Conversational AI
- IR
- Sentiment analysis
- Multilingual systems



SPEECH, AUDIO & INTERACTION

- Audio analytics
- Speech processing
- Music computing
- Human interaction
- Human communication



MULTIMEDIA INTELLIGENCE

- Content understanding
- Multimedia analytics
- Multimodal fusion
- Intelligent media



AI FOR SOCIETY

- Agriculture
- Food security
- Healthcare
- Education
- Biodiversity
- Cybersecurity

IMPACT & ACHIEVEMENTS



400+

Indexed Publications
(WoS / Scopus)



55

Copyrights and Patents



RM 4.7m

Research Grants
(International & National)



12

International Collaborations

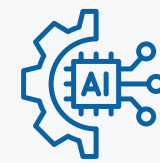


2025 IIOE Pioneer Case
Award Recipient



Horizon 2020
European Union Funding
for Research & Innovation

WHY JOIN VLS?



Work on impactful, real-world AI projects



Interdisciplinary and supportive research culture



Publish, present and grow your research career



Exposure to industry and international collaborations



Opportunities for Bachelor, MSc and PhD studies

OUR PEOPLE

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COLLABORATE WITH US



Postgraduate Supervision



Research Collaboration



Training & Capacity Building



Consultation & Technology Development



Industry Partnership

STAY CONNECTED:



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<https://tinyurl.com/vls-upm>



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Scan to explore VLS projects and collaboration opportunities.



Website



LinkedIn