AGRITIX PRESENTS

XYLORIX: An AI-as-a-Service Platform for Wood Identification

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Who are we?

- Agritix - Tech startup from Malaysia
- University research spin-off
- Innovate forestry & agriculture through AI
Why wood identification?

- Timber trading
- Fraudulent
- Illegal Logging is the major cause of deforestation
- Laws enacted globally
  - USA Lacey Act
  - European timber regulation (EUTR)
  - Illegal Logging Prohibition Act Australia
Bridging End-Users To Wood Experts

1. How to make a computer to id wood like me?
2. How to deploy in massive scale?
3. Who to fix the problems when end-users call?
4. How to continuously upkeep the system?
Bridging End-Users To Wood Experts

Wood Experts <-> Xylorix Platform <-> End-Users

Other Stakeholders
Our Previous Publications


Our Technology Development Phases

- 2005: MyWood-ID with FRIM
- 2009: Xylorix AlaaS Platform
- 2017: Xylorix AlaaS Platform
- 2019: Xylorix AlaaS Platform
How can we help?
Mobile Macroscopic Wood Identification as an show case

- Macroscopic wood identification can be identified by Wood Anatomists up to genus level (Gasson, 2011)

- Sufficient for front-line deployment

- Best Practice Guide for Forensic Timber Identification (2016)
  United Nations Office on Drugs and Crime (UNODC)
How we do it?
Mobile Macroscopic Wood Identification as an show case

- Smart phone with retrofitted 20x macro lens
- Use cloud-hosted deep learning models
- Bringing AI to the edge
- Extensive experience in working with wood anatomists
- Scaling up to reach global crowd
Xylorix Inspector

- Xylorix Platform model application
- Demonstration of Xylorix Platform
- **Macroscopic** wood identification models

Scan QR code to download app or visit
agritix.com/app/inspector/download
Xylorix AlaaS Platform

Model Building
- AI models
- Object Identification
- Various data:
  - Images
  - NIR Spectrum

Model Hosting
- Cloud hosting
- Global API access

Model Sharing
- Model API charging
- Accounting
- Profit sharing
Model Building

- Data Collection
- Annotate
- Verify
- Build
- Evaluate
Model Hosting

- Model store concept
- Cloud hosted
- Access via Internet
- Connect
  - Application
  - Integration
Model Sharing

- We provide
  - Analytics
  - API Counting
  - Accounting
- Profit sharing with model owners
Geo-tagged Images

- Submitted images are geo-tagged
- Help tracking images
- Demo video

Port Klang, Malaysia
Beijing, China
What we do?

- Provide platform build customized AI models
- Provide End-to-End service from building to revenue generation
Open for collaborations

- Xylarium & wood experts
- Authorities
- Timber tracking
- Wood identification
  - Macroscopic
  - Microscopic
  - Near Infra-red spectrum (NIRS)
Contact us

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Check Out Our Website Here

THANK YOU