Data Science

Knowledge Technology Laboratory

Room 310-312, E3 Building, VNU-UET

ABOUT US

- ISI, SCI, SCIE journals
- Top conferences
- Scopus journals/conferences
- Patents

Publications: 130+ (2015-2022)

- **National project**: 5+ projects.
- **Ministerial project**: 6+ projects.
- **UET&VNU project**: 20+ projects.
- **Industrial project**: 2++ project.

Total grant: 30+ billion VND

Assoc. Professor	3
Doctor of Philosophy	2
Master of Science	5
Bachelor of Science	4

Collaboration

Teaching Courses

Data Mining
Advanced Topics of Information System
E-commerce Systems
Domain-driven data mining
Big data processing
Visual data analysis
Principles of Operating Systems
Etc.

FOLLOW US
on Facebook

FOLLOW US
on Instagram

HISTORY

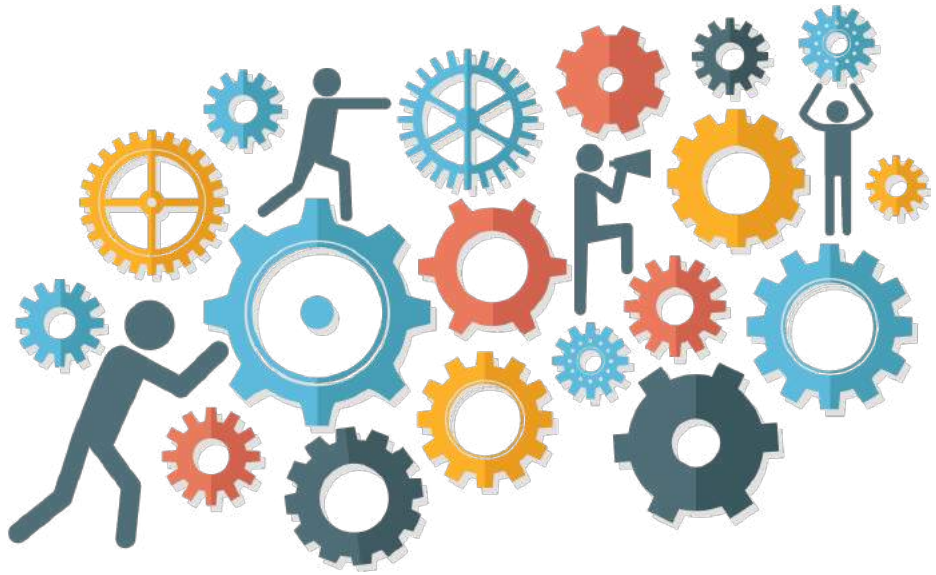
- Organize weekly scientific seminars for **more than 20 years.**
- The predecessor: "the Data Mining and Application Research Group" **(1998 - 2006)**
- Founded since 2010 as the Satellite Laboratory "Knowledge Technology and Data Safety" **(2006- 2010)**
- Officially established on **November 15, 2010**

RESEARCH
direction

NLP & TEXT/WEB MINING

- Opinion Mining
- Sentiment Analysis
- BioNLP
- Intention Mining
- Question & Answering
- Dialogue Systems

PROCESS MINING



- Abstraction of Events
- Trace Clustering
- Concept Drift
- Process discovery
- Process conformance
- Model enhancement

KNOWLEDGE INTEGRATION

- Entity Alignment
- Ontology Construction
- Ontology Enhancement
- Online Learning Task
- Reinforcement Learning Task

DATA AND BUSINESS ANALYTICS

- Customer Insight
- Sequential Recommendation
- Upsell/cross-sell Recommendation
- Market Basket Analysis
- Customer Satisfaction Analysis
- Opinion Mining

LECTURERS

LECTURERS

Assoc. Prof.
Ha Quang Thuy

- Rough set Mining
- Data Mining (Text, Web, etc.)
- Process Mining
- Lifelong Learning
- Business Analysis

thuyhq@vnu.edu.vn

Assoc. Prof.
Phan Xuan Hieu

- Machine Learning
- Natural Language Processing
- Business Intelligence
- Business Analysis

hieupx@vnu.edu.vn

Assoc. Prof.
Tran TrongHieu

- Knowledge Technology
- E-commerce
- Computer Architecture
- Information Safety
- Project Management

hieutt@vnu.edu.vn

Dr. Tran Mai Vu

- Data Mining (Text/Web, etc.)
- Natural Language Processing
- **Big Data Analysis**
- Business Analysis

vutm@vnu.edu.vn

Dr. Le Hoang Quynh

- Natural language processing
- Data mining
- Business intelligent
- Machine learning

lhquynh@vnu.edu.vn

LECTURERS

MSc. Can Duy Cat
catcd@vnu.edu.vn

- Deep Learning
- Natural Language Processing

MSc. Vuong Thi Hai Yen
yenvth@vnu.edu.vn

- Machine Learning
- NLP in Law

MSc. Vuong Thi Hong
hongvt57@vnu.edu.vn

- Data Mining
- Sentiment Analysis

MSc. Nguyen Thi Cam Van
vanntc@vnu.edu.vn

- Natural Language Processing
- Multimodal ML

MSc. Pham T. Quynh Trang
trangptq@vnu.edu.vn

- Lifelong Learning
- Natural Language Processing

BSc. Nguyen Quoc An
annq@vnu.edu.vn

BSc. Nguyen Huy Son
huyson@vnu.edu.vn

BSc. Nguyen Hai Long
nhlong@vnu.edu.vn

BSc. Nguyen Khanh Vinh
vinhnk@vnu.edu.vn

ADJUNCT LECTURERS

Assoc. Prof. Nguyen Hung Son

University of Warsaw

Poland

Assoc. Prof. Nguyen Anh Linh

University of Warsaw

Poland

Prof. Do Van Tien

Budapest University of Technology and Economics

Hungary

Assoc. Prof. Nguyen Cam Tu

Nanjing University of Science and Technology

China

Dr. Nguyen Viet Cuong

HPC SYSTEMS Inc.

Japan

Dr. Nguyen Thanh Son

Singapore

Dr. Vu Tien Thanh

Australia

Dr. Tran Nam Khanh

Amazon

Germany

OUR
PROJECTS

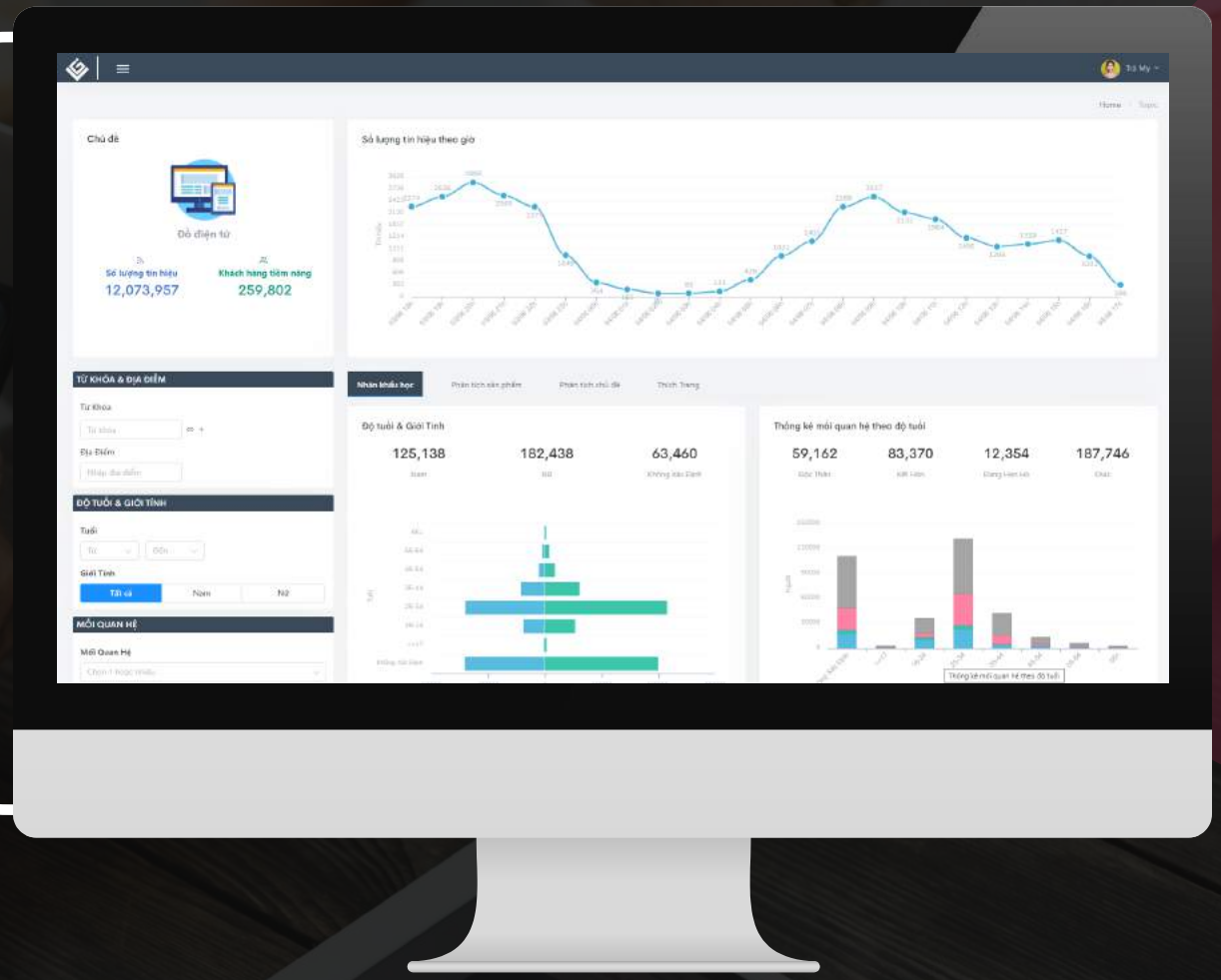
DC: DEEP CUSTOMER

An automated customer analytics and understanding platform towards application in retail, e-commerce, and online advertising.

- Customer insight
- Market research
- Business/marketing analytic
- Price optimization
- Up-sell/cross-sell Recommendation

Machine learning (Deep Learning, Image Processing, Natural Language Processing, etc.);

Big data; Business model canvas

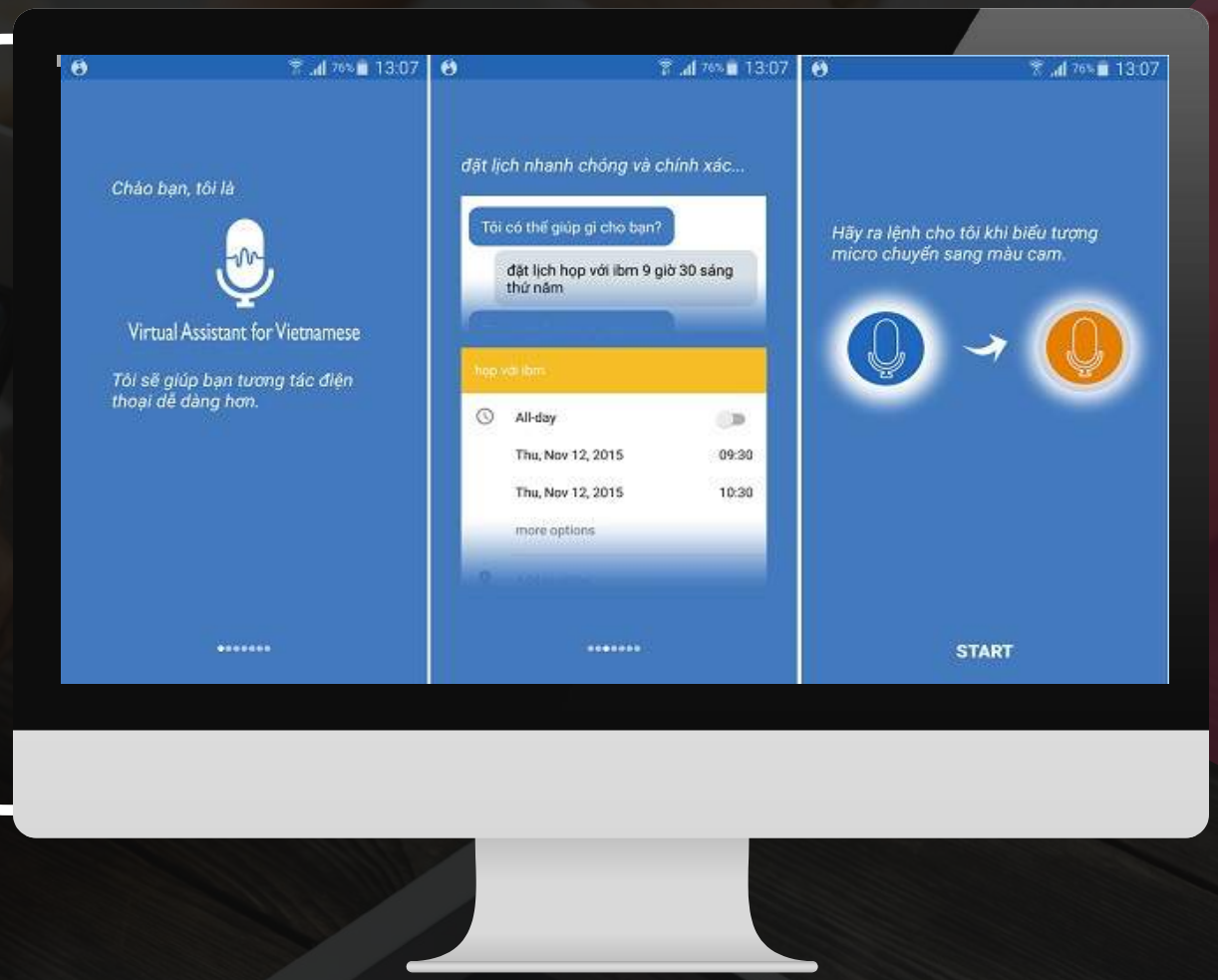


VAV: VIRTUAL ASSISTANT FOR VIETNAMESE

The application interacts with users through voice similar to Siri, Cortana or Google Now.

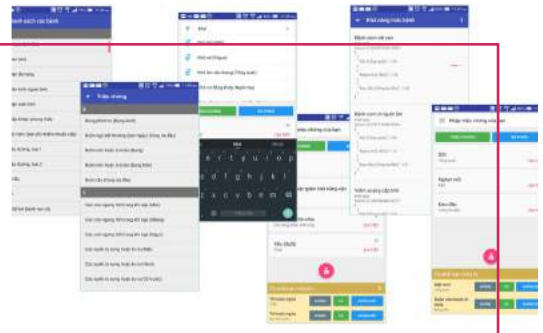
- Launched in **2015**
- **75,000 downloads** after 2 months
- **7300 users rated** VAV with 4.74 / 5.0.
- More than **4200 people commented**
- **Nearly 100 articles** introducing VAV

Interaction are supported: locating addresses, places on the map, finding directions, browsing the web, searching the weather, setting alarms, reminders or create calendar events again

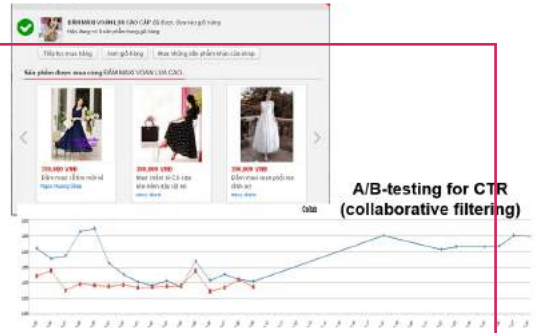


OTHER PROJECTS

VnLoc: News Event Monitoring

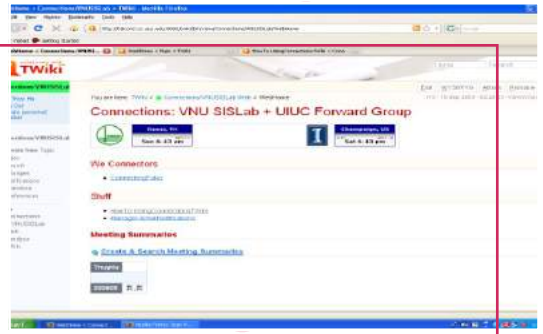


Smart Mobile Medical Information System

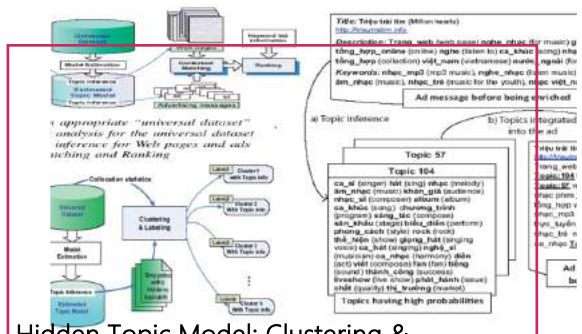


Recommendation for E-Commerce

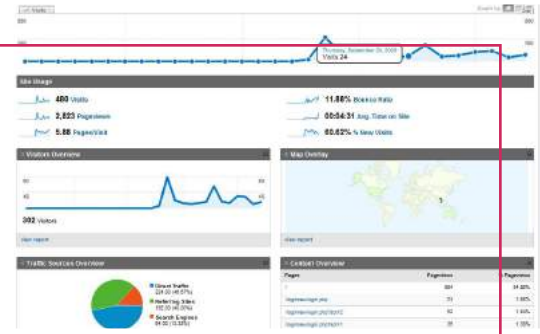
Search Engine: Vietseek/Vinahoo



Vietnamese Entity Search Engine



Hidden Topic Model: Clustering & Advertising

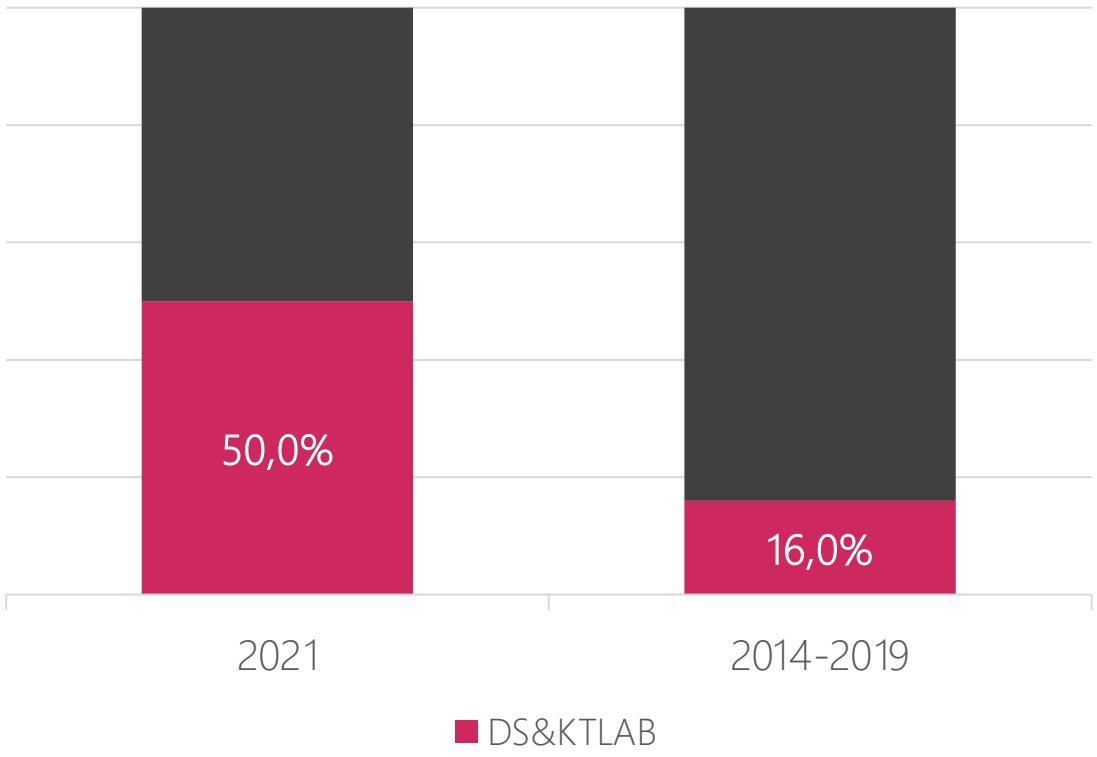


VnGia: Product price search engine

PUBLICATIONS

PUBLICATIONS

Contribute to FIT publications



- Total publications: ~200+
- ~20 publications each year
- Top conferences:
  IJCAI, AAAI, ACL, KDD,
  ACM TALIP, CoNLL,
  WWW, EMNLP, NAACL, ACM CIKM, etc.
- ISI, SCI, SCIE journal:
  PLoS One, Oxford Database,
  Bioinformatics, ACM TWEB, IEEE TKDE,
  Journal on AI Tools, etc,

COLLABORATION

COLLABORATION

University of Cambridge, United Kingdom

Stanford University, United State

University of Florida, United State

University of Trento, Italy

University of Quebec, Canada

Japan Advanced Institute of Science and Technology

National Institute of Informatics, Japan

Nara Institute of Science and Technology, Japan

Wrocław University of Science and Technology, Poland

Max Planck Institute for Informatics, Germany

Korea Advanced Institute of Science and Technology

Deakin University, Australia

Monash University, Australia

Swinburne University of Technology, Australia

University of Melbourne, Australia

University of Technology Sydney, Australia

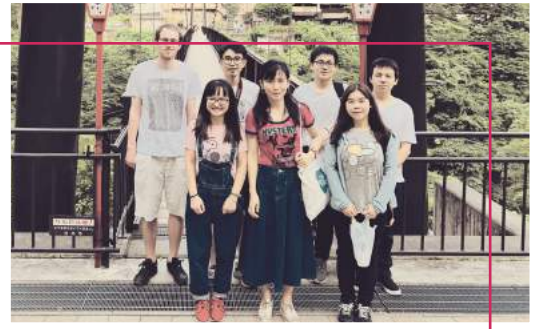
Nanjing University, China

Singapore Management University

Nanyang Technological University, Singapore

COLLABORATION

With prof. N. Collier at **EMNLP** 2018, Belgium

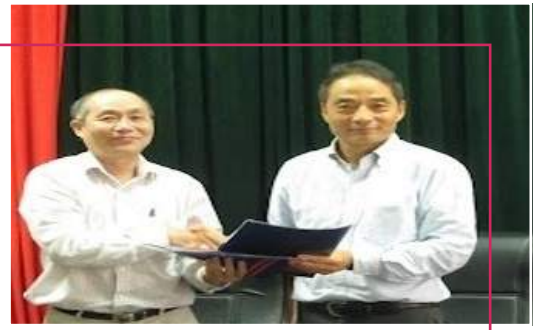


Collab with **DCMSR Devision, NII, Japan**

At **International joint conference on Rough sets**

*Prof. Katayama (President, **JAIST - Japan**) visited DIS*

*Seminar with **Datasection Group**. Japan*



*Signed MOU with **Kyioki Lab**, Keio University*

Collaborated with **Saltlux Corp, Korea**, held a seminar on Opinion Mining, 2010

Presented at **ACIIDS 2018**, Danang, Vietnam

HONORS
&
AWARDS

HONORS AND AWARDS

DS&KTLAB

Merit from the Prime Minister

Merit from the Ministry of Education and Training

Strong research group

Science and technology awards

LECTURERS

Golden Globe Awards

Typical young faces

Labor Medal

Merit from the Ministry of Education and Training

STUDENTS

Student research awards

Honda YES and YES plus awards

6 valedictorians

Enterprise scholarships: Samsung, Panasonic, VIN, Viettel etc.

ALUMNI

ALUMNI

SAMSUNG FPT Google amazon

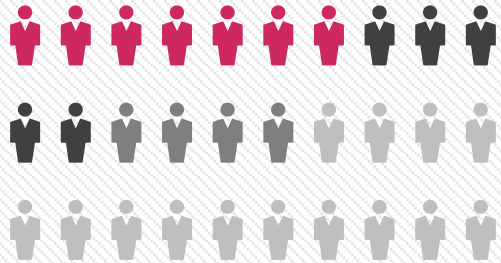
VIETTEL Microsoft facebook

Panasonic

- **Excellent** thesis defense results
- **Good** research results
- Many **honor** awards

200++ Bachelors
100+ Masters
10+ Doctors

10-30 students each year



- **Good position** at top companies: Viettel, FPT, Samsung, Panasonic, Google, Amazon, Microsoft, etc.
- **PhD and MSc scholarships** at top universities.

life
DS&KTLAB

Together,

we

Study!

Together,

we

Play!

Together,

we

have

Fun!

THANK
YOU