CURRICULUM VITAE

LAM DUC DUONG
Researcher, Vietnam Academy of Science and Technology, Hanoi
Visiting Researcher, Osaka University
Date of birth: 1986-04-18
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EDUCATION

2014/9: PhD degree - Engineering Science, Graduate School of Engineering Science, Osaka University, Japan.

2011/9: Master degree - Engineering Science, Graduate School of Engineering Science, Osaka University, Japan.

2008/6: Bachelor degree - Engineering Physics and Nanotechnology, University of Engineering and Technology, Vietnam National University in Hanoi.

EXPERIENCES

2017/1 – present: Researcher in Vietnam Academy of Science and Technology, Osaka University

- Investigate low noise and sensitive magnetic sensor: *signal processing, cross-correlation technique, Discrete Fourier Transform, data analysis (with Osaka University)* ***(Python)***
- *Calculate and simulate 3D nano-systems* ***(Python)***

Part time job at a company: Machine Learning R&D Team

- *Analysis data from the websites*
- *Build Recommendation system for real estate and car* ***(Python, Java)***

2015/4 – 2016/9: Postdoctoral researcher**,** CNRS-Université Paris 11, France

- Investigate Micro-Electro-Mechanical Systems (MEMS)
- *Calculate/simulate a 3D composite micro-system* ***(Comsol Multiphysics)***

2014/11 – 2015/3: Visiting researcher, AIST, Japan

- *Data analysis of X-ray spectra (continue)* ***(C)***

2010/10 – 2014/9: Researching Assistant, Osaka University, Japan

- Study X-ray absorption (XAS) and magnetic circular dichroism (XMCD).
- *Analyze X-ray spectra data: normalizes spectra, calculates atomic moments and estimates static errors.* ***(C)***
- *Calculate the etching parts in SEM (Scanning Electron Microscope) images* ***(C)***

2004/9 – 2008/6: Bachelor, Physics and Nanotechnology, Vietnam National University in Hanoi

- *Private project: Estimate the probability of the 2 last numbers of the lottery system, optimize a playing strategy to win money with assumption of the same appearing distribution for numbers*

(00 – 99).

- *Participate to the University team in the ACM International Collegiate Programming Contest operates under the auspices of the Association for Computing Machinery (ACM-ICPC) Asia region.* ***(C)***

2001/9 – 2004/6: Gifted High School Students in subject of Mathematical Informatics.

- *Participate to the Advance Mathematical Informatics and Algorithms group*
- *Participate to the National Olympiad in Informatics Competition (2002 &2003)* ***(Pascal)***

SKILLS

Languages:

+ English: working proficiency
+ Japanese: basic conservation (N3)

Programming:

+ Pascal : 3 years
+ C: > 10 years
+ Python: 5 months (learning)
+ Java: 3 month (learning)
+ Other: Labview, Comsol Multiphysics

Measurement: Magneto-Optic Kerr Effect (MOKE), Soft and hard X-ray absorption spectra (XAS), Magnetic circular dichroism (XMCD)

Data Analysis:

+ Linear algebra, calculus
+ Signal processing

AWARDS

2017: The Best Poster Adward in the 4th International Symposium on Advanced Magnetic Materials and Applications (ISAMMA)

2013, 2014: Masuda Yosahichi Foundation Scholarship for Asian Students in Japan

2007: 3rd prize, Vietnam National Physical Competition for University students

2006: 4th prize, Vietnam National Informatics Programming Competition for University students
Odon Vallet scholarship for Vietnamese students

2003: Odon Vallet scholarship (a French Foundation) for outstanding Vietnamese high school students

2002: 4th prize, Vietnam National Informatics Programming Competition for high school.

EXTRA-CURRICULAR ACTIVITIES

2015 – 2016/9:

+ Vice – Director of Union of Vietnamese students in France
+ Organizer Vietnamese Scientific Seminar Group in Orsay
+ Co-founder of a volunteer group to help new students.

2010 – 2014/9: Coach and Assistant Manager of Vietnamese student soccer club in Osaka University

OTHERS:

- 9 peer-reviewed papers (3 1st authour papers), 6 international scientific conferences,
- Play soccer, investigate soccer strategy.
- Meet up people from foreign countries, interact with strangers, foreigners

ACADEMIC PUBLICATIONS

1. A. Bose, A.K. Shukla, K. Konishi, S. Jain, N. Asam, S. Bhuktare, H. Singh, **D.D. Lam**, Y. Fujii, S. Miwa, Y. Suzuki and A. A. Tulapurkar, *"Observation of thermally driven field-like spin torque in magnetic tunnel junctions"*, Appl. Phys. Lett. **109**, 032406 (2016)
2. **D.D. Lam**, F. Bonell, Y. Shiota, S. Miwa, N. Mizuochi, T. Shinjo, Y. Suzuki, "*Growth of perpendicular magnetic anisotropy CoFeB thin fims on Polymer buffer and voltage effect of MgO|CoFeB bottom interface*", AIP ADVANCES **5(6)**:067132 (2015).
3. W. Skowroński, T. Nozaki, **D.D. Lam**, Y. Shiota, K. Yakushiji, H. Kubota, A. Fukushima, S. Yuasa, Y. Suzuki, *"Underlayer material influence on electric-field controlled perpendicular magnetic anisotropy in CoFeB/MgO magnetic tunnel junctions"*, PHYSICAL REVIEW B **91**(18) (2015)
4. S. Jain, **D. D. Lam**, A. Bose, H. Sharma, V. R. Palkar, C. V. Tomy, Y. Suzuki, A. A. Tulapurkar, *"Magneto-Seebeck effect in spin-valve with in-plane thermal gradient"*, AIP Advances **4**, 127145 (2014)
5. **D.D. Lam**, F. Bonell, S. Miwa, Y. Shiota, K. Yakushiji, H. Kubota, T. Nozaki, A. Fukushima, S. Yuasa and Y. Suzuki, *"MgO thickness dependence of perpendicular magnetic anisotropy in CoFeB thin films"*, J. Korean Phys. Soc. **62**,10,1461-1464 (2013)
6. **D.D. Lam**, F. Bonell, S. Miwa, Y. Shiota, K. Yakushiji, H. Kubota, T. Nozaki, A. Fukushima, S. Yuasa and Y. Suzuki, *"Composition dependence of perpendicular magnetic anisotropy in* $Ta/Co_xFe_{80-x}B_{20}/MgO/Ta$ *(x=0, 10, 60) multilayers"*, Journal of Magnetics, **18**, 1 (2013)
7. P. Sheng, F. Bonell, S. Miwa, T. Nakamura, Y. Shiota, S. Murakami, **D.D. Lam**, S. Yoshida and Y. Suzuki, *"Detailed analysis of spin-dependent quantum interference effects in magnetic tunnel junctions with Fe quantum wells"*, Applied Physics Letters, **102**, 032406 (2013)
8. F. Bonell, Y. Takahashi, **D.D. Lam**, S. Yoshida, Y. Shiota, S. Miwa, T. Nakamura, Y. Suzuki, "*Reversible change in the oxidation state and magnetic circular dichroism of Fe driven by an electric field at* the *FeCo/MgO interface"*, Applied Physics Letters **102**, 152401 (2013)
9. F. Bonell, **D. Lam**, S. Yoshida, Y. Takahashi, Y. Shiota, S. Miwa, T. Nakamura, Y. Suzuki, *"Investigation of Au and Ag segregation on Fe(001) with soft x-ray absorption"*, Surface Sciences, **616**, 125-130 (2013)

CONFERENCES

1. **D.D. Lam**, T.H.T. Trinh, "Magnetic Dead Layer and a precise method to determine the interface anisotropy of magnetic thin films", ISAMMA2017, Phu Quoc, Vietnam, December, 10^{th} – 13^{th}, 2017 ***(the best Poster Adward)***
2. **D.D. Lam**, J.P. Adam, G. Agnus, S. Eimer, L. Herrera-Diez, N. Vernier, T. Devolder, T. Maroutian, P. Auber, P. Lecoeur, D. Ravelosona, *"Direct growth of perpendicular CoFeB/MgO structure on piezoelectric films for strain control of domain wall motion",* MMM2016, New Orleans, LA, USA, Oct 31^{th} - Nov 4^{th}, 2016
3. **D.D. Lam**, F. Bonell, S. Miwa, Y. Shiota, N. Mizuochi, T. Shinjo, Y. Yomogida, T. Takenobu, Y. Iwasa, Y. Suzuki, *"Investigation of voltage control of magnetic anisotropy in CoFeB thin films with ion gel dielectrics"*, ICMFS 2015, Krakow, Poland, July 12^{th}-18^{th} , 2015
4. **D.D. Lam,** F. Bonell, Y. Shiota, K. Tanaka, Y. Takahashi, S. Miwa, N. Mizuochi, T. Shinjo, Y. Kotani, T. Nakamura, Y. Suzuki, *"X-ray magnetic circular dichroism study of magnetic anisotropy in Ta/CoFeB/MgO/Ta multilayers",*JSAP, Kanagawa, Japan, March 17^{th}-20^{th} , 2014.
5. **D.D. Lam**, F. Bonell, S. Miwa, Y. Shiota, K. Yakushiji, H. Kubota, T. Nozaki, A. Fukushima, S. Yuasa and Y. Suzuki, *"MgO overlayer thickness dependence of perpendicular magnetic anisotropy in Ta/$Co_xFe_{80-x}B_{20}$/MgO/Ta (x=0, 10, 60) multilayers"*, ICAUMS 2012, Nara, Japan, October, 2^{nd} - 5^{th}, 2012.
6. **D.D. Lam**, F. Bonell, S. Miwa, Y. Shiota, K. Yakushiji, H. Kubota, T. Nozaki, A. Fukushima, S. Yuasa and Y. Suzuki, *"Dependence of perpendicular magnetic anisotropy of CoFeB thin films on thickness of MgO overlayer"*, ICM 2012, Busan, Korea, July, 8^{th} – 13^{th}, 2012
7. **D.D. Lam**, F. Bonell, K. Konishi, Y. Fujii, S. Murakami, Y. Shiota, T. Shinjo, Y. Suzuki, "*Perpendicular Magnetic Anisotropy of CoFeB thin films*", 5^{th} International Workshop on Spin Currents, Sendai, Japan, July 25^{th} - 28^{th} , 2011.

REFERENCES

1. Prof. Yoshishige Suzuki, (PhD course Supervisor)

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