

Curriculum Vitae

Assoc. Prof. Preya Anupongongarch



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EDUCATION

- M.Sc., Physics, Srinakharinwirot University, Thailand, 1991
- B.Ed., Physics, Srinakharinwirot University (Patumwan), Thailand, 1985

CURRENT POSITION

- Associate Dean for Administration and Learning Development of Biomedical Engineering Program, College of Biomedical Engineering, Rangsit University
- Associate Professor in Physics (2016)

OFFICE ADDRESS:

- Biomedical Engineering Program, Administration of Biomedical Engineering Program, College of Biomedical Engineering, Rangsit University; 52/347 Paholyothin Road, Muang, Pathumtani, Thailand, 12000.

RESEARCH GRANTS:

- Research Institute, Rangsit University. Development of Heart Sound Data Recorder and Monitor by Microcomputer System.
- Instructional Support and Development Center, Rangsit University. E- Learning for Physics 2 : Waves Sound and Light. 2006.
- Instructional Support and Development Center, Rangsit University. A Development of Computer Assisted Instruction Lesson for the Physics I Course: "Dynamics". 2007.
- Instructional Support and Development Center, Rangsit University. Developing Computer Assisted Instruction for Physics I "The Motion of Rigid Body". 2008.
- Instructional Support and Development Center, Rangsit University. Factors Affecting the Learning Achievement Physics I Subject of the Engineering Students Year 1. 2008

- Instructional Support and Development Center, Rangsit University. Development of the Experiment Set for Studying Wave Resonance in Closed End Tube. 2009.
- Instructional Support and Development Center, Rangsit University. Development of the Experiment Kit Property of Geometry Light. 2011.
- Instructional Support and Development Center, Rangsit University. Effectiveness of Experiment Kit in PHY224 : Physics Laboratory II on Photoelectric. 2013.
- Instructional Support and Development Center, Rangsit University. Development and Effectiveness of the Defibrillator Experiment Set. 2016.

BOOK:

- Preya Anupongongarch (2015). Physics2
- Preya Anupongongarch (2006). Physics 1
- Preya Anupongongarch (2013). Physics Laboratory Manual PHY 122
- Preya Anupongongarch (2014). Physics Laboratory Manual PHY 224

PUBLICATIONS

1. Anupongongarch, P., Kaewgun, T., & O'Reilly, J. A. (2022). A STUDY ON THE RELATION BETWEEN DIGITAL OUTPUT AND URIC ACID IN ARTIFICIAL BLOOD SOLUTION BY USING A URIC ACID DETECTOR . INTERNATIONAL JOURNAL OF APPLIED BIOMEDICAL ENGINEERING, 15(2), 39-46.
2. Anupongongarch, P., Kaewgun, T., O'Reilly, J. A., & Suraamornkul, S. (2022, January). Design and construction of a non-invasive blood glucose and heart rate meter by photoplethysmography. Journal of Current Science and Technology, 12(1), 89-101.
3. P.Anupongongarch, T.Kaewgun, and J.A.O'Reilly Design and Construction of a Non-invasive Blood Glucose Meter. (2020). International Journal of Applied Biomedical Engineering. Vol.13, No.2 pp. 36-42, December 2020.
4. Anupongongarch, P., Kaewgun, T., & Ananpattiwet. (2020). A Study on Design and Construction of Non-invasive Cholesterol Sensor. Proceeding in RSU International Research Conference, May 1, 2020. Pathum Thani, Thailand.
5. Eadsongkram, S., Kaewgun, T., Anupongongarch, P., Angsuwattanakul, T., Narattha, P., Loetsiri, P. (2019). Design and Construction of Audiometer by Using LabVIEW Program, In The 11th Biomedical Conference (BMECON-2019), 1st -2nd August 2019.

6. P. Anupongonarch and T. Kaewgun. Development and Effectiveness of the Defibrillator Experiment Set. *Journal Rangsit University: Teaching and Learning* Volume 13 No.2. July-December 2019. P. 87-98.
7. P. Anupongonarch, T. Kaewgun, J.A.O'Reilly and P. Khaomek. Development of a Non-invasive Blood Glucose Sensor. (2019). *International Journal of Applied Biomedical Engineering*. Vol.12, No.1 pp. 13-20, June 2019.
8. T. Kaewgun, P. Anupongonarch, K. Chatchawal. Design and Low Cost Construction of Neonatal Bilirubin Phototherapy Equipment. (2018) *RSU International Conference (RSUCON-2018)*.
9. P. Anupongonarch. Effectiveness of Experiment Kit in PHY 224: Laboratory II on Photoelectric. *Journal Rangsit University: Teaching and Learning* Volume 11 No.2. July-December 2017. P. 147-155.
10. T. Kaewgun, P. Anupongonarch, K. Yantapan. Electrical Safety Tester for Medical Equipment Application. (2016) *The Third International Conference on Biomedical Engineering (BME-HUST-2016)*.
11. T. Kaewgun, P. Anupongonarch, K. Roongprasert. Design and Construction of a Compact Model of Median Cubital Vein Transilluminator. (2016) *The 2016 Biomedical Engineering International Conference (BMEiCON-2016)*.
12. P. Anupongonarch, K. Khaosomboon, T. Kaewgun. Design and Construct the Median Cubital Vein Transillumination Device by Using LED. (2015) *The 2015 Biomedical Engineering International Conference (BMEiCON-2015)*. Paper ID 1-1570215056
13. T. Kaewgun, P. Anupongonarch, A. Kittipongtorchai, P. Jaroensuk. A Study on the Design and Construction an Electrical Safety Tester for Medical Equipment. *Academic Science and Technology Conference ASTC2013*, P.34.
14. T. Kaewgun, P. Anupongonarch, T. Yuenman, S. Inchan. A Study on the Design and Construction of the Phototherapy. *Proceedings of Biomedical Engineering Conference (BMECON2013)*, p29.
15. P. Anupongonarch. Development of the Experiment Set for Studying Geometrical Properties of Light. *Journal Rangsit University: Teaching and Learning* Volume 9 No.1. January - June 2015. P.10-22.
16. P. Anupongonarch, Sema Sonprasom. Developing Computer Assisted Instruction for Physics I "The Motion of Rigid Body. *Journal Rangsit University: Teaching and Learning* Volume 6 No. 1. January - June 2555. P.69-82.
17. P. Anupongonarch, T. Kaewgun, N. Prasartthong, P. Sabuysuk, N. Saisaout. A Study on the Design and Construction of Hyperthermia Unit. *Proceeding of The 4th Biomedical Engineering Conference (THAI BMECON 2012)*, Bangkok. p 123-126.
18. P. Anupongonarch, T. Kaewgun, A. Ubphathum, K. Archawut. A Study on the Design and Construction of Temperature Control System and Humidity Measurement of the Infant

- Incubator. Journal of Thai Biomedical Instrumentation. Volume 11 No.28. January-April 2012. P.13-20.
19. P. Anupongonarch. Development of the Experiment Set for Studying Wave Resonance in Closed End Tube. Journal Rangsit University: Teaching and Learning Volume 5 No.2. July-December 2011. P. 5-19.
 20. P. Anupongonarch, Sema Sonprasom. E- Learning for Physics 2 : Waves Sound and Light. Journal Rangsit University: Teaching and Learning Volume 2 No. 1. January - June 2551. P. 38-52.
 21. P. Anupongonarch, Sema Sonprasom. A Development of Computer Assisted Instruction Lesson for the Physics I Course: "Dynamics" Journal Rangsit University: Teaching and Learning Volume 3 No. 1. January - June 2552. P.15-25.
 22. P. Anupongonarch. Factors Affecting the Learning Achievement Physics I Subject of the Engineering Students Year 1. Journal Rangsit University: Teaching and Learning Volume 3 No. 2 July-December 2009. P.35-44.
 23. N. Thongpance, T. Kaewgun, P. Anupongonarch, K. Thongpun, T. Yunmun. Design and Construction of White Blood Cell. Proceeding of The 5th Biomedical Engineering Conference (THAI BMECON 2012), P.92-97.
 24. T. Kaewgun, P. Anupongonarch, T. Yunmun, S. Injun, R. Phumsombat, P. Areekhathairat. A Study of the Design and Construction of Phototherapy Proceeding of The 5th Biomedical Engineering Conference (THAI BMECON 2013), P.29-34.
 25. T. Kaewgun, P. Anupongonarch, A.Kitipongthonchai, P. Chareonsuk. Design and Construction of Electrical for Medical Safety Tesrter. The 1st Academic Tecnology Conference (ASTC2013) P.34.

COURSES TAUGHT

- Physics 1
- Physics 2
- Thermofluids
- Statics

PETTY PATENT

1. Preya Anupongonarch and Thawat Kaewgun. (2022). **Portable Cup to Measure Sweetness in Beverages**. Petty Patent No. 210319. Department of Intellectual Property. Ministry of Commerce. Thailand.

2. Preya Anupongongarch and Thawat Kaewgun. (2022). **Fingertip Clip-on Blood Pressure and Pulse Rate Monitor**. Petty Patent No. 20318. Department of Intellectual Property. Ministry of Commerce. Thailand.
3. Preya Anupongongarch and Thawat Kaewgun. (2022). **2-channel Display UV Intensity Meter**. Petty Patent No. 20319. Department of Intellectual Property. Ministry of Commerce. Thailand.
4. Anantasak Wongkhamhaeng, Sutee Triwiwatwong, Preya Anupongongarch and Nantachai Thongpance. (2022). **Portable Positive Pressure Type Airborne Infection Protective Equipment**. Petty Patent No. 20320
5. Preya Anupongongarch and Thawat Kaewgun (2021). **Pulse Force Meter**. Petty Patent No. 20728. Department of Intellectual Property. Ministry of Commerce. Thailand.
6. Preya Anupongongarch and Thawat Kaewgun (2021). **Non-Invasive Fingertip Clamp Blood Cholesterol Meter**. Petty Patent No. 18778" Department of Intellectual Property. Ministry of Commerce. Thailand.
7. Preya Anupongongarch, Thawat Kaewgun and Chalernpol Kaewjai (2021). **Suspended Solids in Culture Medium Meter**. Petty Patent No. 18400. Department of Intellectual Property. Ministry of Commerce. Thailand.
8. Preya Anupongongarch and Thawat Kaewgun. (2021). **Communication Glove for Pharyngeal Patients**. Petty Patent No. 19322. Department of Intellectual Property. Ministry of Commerce. Thailand.
9. Preya Anupongongarch, Thawat Kaewgun and Swanjit Suraamonkul. (2022). Petty Patent No. 1 7624. **Fingertip Clamp Type Non-invasive Glucose Meter**. Department of Intellectual Property. Ministry of Commerce. Thailand.
10. Preya Anupongongarch, Thawat Kaewgun and Thanate Angsuwattanakul (2019) Copyright No. 374105. **Audiometer Program**. Department of Intellectual Property. Ministry of Commerce. Thailand.
11. Preya Anupongongarch (2019). Petty Patent No. 14795. **Photoelectric Experiment Set**. Department of Intellectual Property. Ministry of Commerce. Thailand.
12. Preya Anupongongarch and Thawat Kaewgun (2018). Petty Patent No. 14124. **Electrical Teeth Root Meter**. Department of Intellectual Property. Ministry of Commerce. Thailand.
13. Preya Anupongongarch and Thawat Kaewgun (2018). Petty Patent No. **14071. Hearing Aids Device**. Department of Intellectual Property. Ministry of Commerce. Thailand.
14. Preya Anupongongarch and Thawat Kaewgun (2018). Petty Patent No. **14319. Electric Wheelchair Mobility Control Set for Disabled People with Accelerometer Sensor**. Department of Intellectual Property. Ministry of Commerce. Thailand.
15. Preya Anupongongarch and Thawat Kaewgun (2018). Petty Patent No. **14098. A Compact Model of Median Cubital Vein Transilluminator**. Department of Intellectual Property. Ministry of Commerce. Thailand.

16. Preya Anupongongarch and Thawat Kaewgun (2 017). Petty Patent No. **12199. Non-invasive Glucose Meter type Clipping at Ear Lobe.** Department of Intellectual Property. Ministry of Commerce. Thailand.
17. Preya Anupongongarch. (2 017). Petty Patent No. 14098. **Compact model of Median Cubital Vein Transillumination.** Device. Department of Intellectual Property. Ministry of Commerce. Thailand.
18. Preya Anupongongarch. (2 016) . Petty Patent No. 13653. **Electrical Safety Test.** Department of Intellectual Property. Ministry of Commerce. Thailand.
19. Preya Anupongongarch. (2 016) . Petty Patent No. 11267. **Median Cubital Vein Transillumination Device.** Department of Intellectual Property. Ministry of Commerce. Thailand.
20. Preya Anupongongarch. (2015). Petty Patent No 9570. **Property of light Experiment Kit.** Department of Intellectual Property. Ministry of Commerce. Thailand.
21. Preya Anupongongarch. (2014). Petty Patent No 8870. **Resonance in a closed pipe Tube experiment Kit.** Department of Intellectual Property. Ministry of Commerce. Thailand.

AWARDS

- 2018 Outstanding Instructor Award 12 years in a Row of Rangsit University
- 2014 Outstanding Instructor Award 9 years in a Row of Rangsit University
- 2011 Outstanding 3rd Place Winner Award of e-learning: Courseware Designed By you 4#
- 2011 Outstanding Instructor Award 6 years in a Row of Rangsit University
- 2009 Outstanding Teacher Award of Rangsit University
- 2008 Outstanding Teacher of the Teaching Award of Rangsit University
- 2008 Outstanding Instructor Award 3 years in a Row of Rangsit University
- 2007 Outstanding Teacher of the Teaching Award of Rangsit University
- 2007 Outstanding 2nd Place Winner Award of e-learning: Courseware Designed By you 2#
- 2006 Outstanding Complimentary Award of e-learning: Courseware Designed By you 1#
- 2006 Outstanding Teacher of the Teaching Award of Rangsit University
- 2005 Outstanding Teacher of the Teaching Award of Rangsit University