Professor Phuc Phung-Van

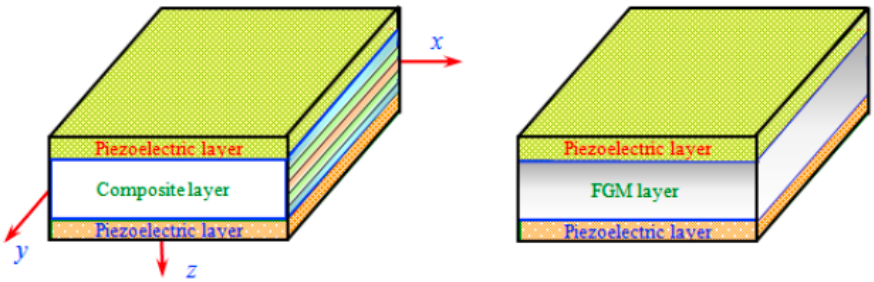

Figure 1.1. Two models of piezoelectric material plates: (a) piezoelectric composite plates and (b) piezoelectric functionally graded material plates.

From: Phuc Phung-Van, "Isogeometric analysis for smart plate structures", Ph.D dissertation, University of Ghent, Belgium, 2016

See:
https://scholar.google.com.vn/citations?user=fOPiziAAAAAJ&hl=en
https://www.researchgate.net/profile/Phung-Van_Phuc

Dept. of Mechanical Construction and Production
Ghent University, Belgium

Selected Publications:

Bui-Xuan, T., Nguyen-Thoi, T., Pham-Duc, T., Phung-Van, P., Ngo-Thanh, P., An analysis of eccentrically stiffened plates by CS-DSG3 using triangular elements. The international conference on advances in computational mechanics, Ton Duc Thang University, August 14- 16 2012, (2012), pp. 629–643.

Nguyen-Thoi, T., Phung-Van, P., Nguyen-Xuan, H., et al.: A cell-based smoothed discrete shear gap method using triangular elements for static and free vibration analyses of Reissner–Mindlin plates. Int. J. Numer. Methods Eng. 91, 705–741 (2012)

Nguyen-Thoi T, Luong-Van H, Phung-Van P, Rabczuk T, Tran-Trung D. Dynamic responses of composite plates on the Pasternak foundation subjected to a moving mass by a cell-based smoothed discrete shear gap (CS-FEM-DSG3) method. Int J Compos Mater 2013;3:19–27.

Nguyen-Thoi, T., Phung-Van, P., Luong-Van, H., et al.: A cell-based smoothed three-node Mindlin plate element (CS-MIN3) for static and free vibration analyses of plates. Comput. Mech. 51, 65–81 (2013)

T. Nguyen-Thoi, P. Phung-Van, C. Thai-Hoang and H. Nguyen-Xuan, "A cell-based smoothed discrete shear gap method (CS-DSG3) using triangular elements for static and free vibration analyses of shell structures", International Journal of Mechanical Sciences, Vol. 74, pp 32-45, September 2013

T. Nguyen-Thoi, T. Bui-Xuan, P. Phung-Van, H. Nguyen-Xuan and P. Ngo-Thanh, "Static, free vibration and buckling analyses of stiffened plates by CS-FEM-DSG3 using triangular elements", Computers & Structures, Vol. 125, pp 100-113, September 2013

Phung-Van, P., Nguyen-Thoi, T., Le-Dinh, T. and Nguyen-Xuan, H. [2013a] "Static, free vibration analyses and dynamic control of composite plates integrated with piezoelectric sensors and actuators by the cell-based smoothed discrete shear gap method (CS-FEM-DSG3)," Smart Mater. Struct. 22(9), 095026.

Phung-Van, P., Nguyen-Thoi, T., Tran, V. L. and Nguyen-Xuan, H. [2013b] "A cell-based smoothed discrete shear gap method (CS-DSG3) based on the C0-type higher-order shear deformation theory for static and free vibration analyses of functionally graded plates," Comput. Mater. Sci. 79, 857–872.

Phung-Van, P., Thai-Hoang, C., Nguyen-Thoi, T. and Nguyen-Xuan, H. [2014] "Static and free vibration analyses of composite and sandwich plates by an edge-based smoothed discrete shear gap method (ES-DSG3) using triangular elements based on layerwise theory," Compos. B, Eng. 60, 227–238
Nguyen-Thoi, T., Phung-Van, P., Rabczuk, T., Nguyen-Xuan, H., and Le-Van, C. (2013). "Free and forced vibration analysis using the n-sided polygonal cell-based smoothed finite element method (nCS- FEM)." International Journal of Computational Methods, Vol. 10, No. 1, pp. 1340008.
Nguyen-Thoi, T., Phung-Van, P., Rabczuk, T., Nguyen-Xuan, H. and Le-Van, C. [2013] "An application of the ES-FEM in solid domain for dynamic analysis of 2D fluid–solid interaction problems," Int. J. Comput. Methods 10(1), 1340003.
T. Nguyen-Thoi, P. Phung-Van, V. Ho-Huu and L. Le-Anh, "An edge-based smoothed finite element method (ES-FEM) for dynamic analysis of 2D fluid-solid interaction problems", KSCE Journal of Civil Engineering, January 2014, DOI 10.1007/s12205-015-0293-4
Phung-Van, P., Nguyen-Thoi, T., Luong-Van, H., Lieu-Xuan, Q. (2014). Geometrically nonlinear analysis of functionally graded plates using a cell-based smoothed three-node plate element (CS-MIN3) based on the C0-HSDT. Computer Methods in Applied Mechanics and Engineering 270:15-36.
Nguyen-Thoi, T., Phung-Van, P., Nguyen-Hoang, S., and Lieu-Xuan, Q. (2014). "A smoothed coupled NS/nES-FEM for dynamic analysis of 2D fluid-solid interaction problems." Applied Mathematics and Computation, Vol. 232, pp. 324-346
Nguyen-Thoi, T., Rabczuk, T., Lam-Phat, T., Ho-Huu, V. and Phung-Van, P. [2014] "Free vibration analysis of cracked Mindlin plate using an extended cell-based smoothed discrete shear gap method (XCS-DSG3)," Theor. Appl. Fract. Mech. 72, 150–163.
Nguyen-Thoi, T., Bui-Xuan, T., Phung-Van, P., et al.: An edge-based smoothed three-node Mindlin plate element (ES-MIN3) for static and free vibration analyses of plates. KSCE J. Civil Eng. 18, 1072–1082 (2014)
Luong-Van, H., Nguyen-Thoi, T., Liu, G. R. and Phung-Van, P. [2014] "A cell-based smoothed finite element method using three-node shear-locking free Mindlin plate element (CS-FEM-MIN3) for dynamic response of laminated composite plates on viscoelastic foundation," Eng. Anal. Bound. Elem. 42, 8–19.
Phung-Van, P., Nguyen-Thoi, P., Luong-Van, H., Thai-Hoang, C. and Nguyen-Xuan, H. [2014a] "A cell-based smoothed discrete shear gap method (CS-FEM-DSG3) using layerwise deformation theory for dynamic response of composite plates resting on viscoelastic foundation," Comput. Methods Appl. Mech. Eng. 272, 138–159.
Phung-Van, P., Luong-Van, H., Nguyen-Thoi, T. and Nguyen-Xuan, H. [2014c] "A cell-based smoothed discrete shear gap method (CS-DSG3) based on the higher-order shear deformation theory for dynamic responses of Mindlin plates on the viscoelastic foundation subjected to a moving sprung vehicle," Int. J. Numer. Methods Eng. 98(13), 988–1014.
Phung-Van, P., Nguyen-Thoi, T., Dang-Trung, H. and Nguyen-Minh, N. [2014d] "A cell-based smoothed discrete shear gap method (CS-FEM-DSG3) using layerwise theory based on the C0-type higher-order shear deformation for static and free vibration analyses of sandwich and composite plates," Compos. Struct. 111, 553–565.
Loc V. Tran, P. Phung-Van, Vinh Phu Nguyen, M. Abdel Wahab and H. Nguyen-Xuan, "Vibration analysis of cracked plate using higher-order shear deformation theory", Proceedings of the 3rd International Conference on Fracture, Fatigue and Wear, pp 127-133, 2014
Nguyen-Thoi, T., Phung-Van, P., Nguyen-Thoi, M. H. and Dang-Trung, H. [2015c] "An upper-bound limit analysis of Mindlin plates using CS-DSG method and second-order cone programming," J. Comput. Appl. Math. 281, 32–48.

Phung-Van P., Abdel-Wahab M., Liew K.M., Bordas S.P.A., Nguyen-Xuan H.: Isogeometric analysis of functionally graded carbon nanotube-reinforced composite plates using higher-order shear deformation theory. Compos. Struct. 123, 137–149 (2015)
Phung-Van, P., De Lorenzis, L., Thai, C.H., et al.: Analysis of laminated composite plates integrated with piezoelectric sensors and actuators using higher-order shear deformation theory and isogeometric finite elements. Comput. Mater. Sci. 96, 495–505 (2015)
Son Nguyen-Hoang, Phuc Phung-Van, Sundararajan Natarajan and Hyun-Gyn Kim, "A combined scheme of edge-based and mode-based smoothed finite element methods for Reissner-Mindlin flat shells", Engineering with Computers, September 2015, DOI: 10.1007/s00366-015-0416-z
Loc V. Tran, Phuc Phung-Van, Jaehong Lee, H. Nguyen-Xuan and M. Abdel Wahab, "Isogeometric approach for nonlinear bending and post-buckling analysis of functionally graded plates under thermal environment", publisher not given in the pdf file, November 2015
Phuc Phung-Van, "Isogeometric analysis for smart plate structures", Ph.D dissertation, University of Ghent, Belgium, 2016
Tran LV, Phung-Van P, Lee J, Wahab M, Nguyen-Xuan H. Isogeometric analysis for nonlinear thermomechanical stability of functionally graded plates. Compos Struct 2016;140:655–67.
Phung Van Binh, Dang Hoang Minh, Gavriushin Sergei Sergeevich and Nguyen Viet Duc, "Boundary of stability region of a thin-walled beam under complex loading condition", International Journal of Mechanical Sciences, Vol. 122, pp 355-361, March 2017
Phung-Van, P., Lieu, Q.X., Nguyen-Xuan, H. and Wahab, M.A. (2017b), "Size-dependent isogeometric analysis of functionally graded carbon nanotube-reinforced composite nanoplates", Compos. Struct., 166, 120-135.
P. Phung-Van, A.J.M. Ferreira, H. Nguyen-Xuan and M. Abdel Wahab, "An isogeometric approach for size-dependent geometrically nonlinear transient analysis of functionally graded nanoplates", Composites Part B: Engineering, Vol. 118, pp 125-134, June 2017
P. Phung-Van, M. Abdel-Wahab and H. Nguyen-Xuan, "An isogeometric approach for size-dependent buckling analysis of FGM nanoplates", 12th International Conference on Damage Assessment of Structures, IOP Conf. Series: Journal of Physics: Conf. Series 842, 012085, 2017
P. Phung-Van, M. Abdel-Wahab and H. Nguyen-Xuan, "Buckling analysis of nanoplates using IGA", 6th International Conference on Fracture, Fatigue and Wear, IOP Conf. Series: Journal of Physics: Conf. Series 843, 012016, 2017
Cuong-Le Thanh, P. Phung-Van, Chien H. Thai, H. Nguyen-Xuan And M. Abdel Wahab, "Isogeometric analysis of functionally graded carbon nanotube reinforced composite nanoplates using modified couple stress theory", Composite Structures, Vol. 184, pp 633-649, January 2018
P. Phung-Van, Cuong-Le Thanh, H. Nguyen-Xuan and M. Abdel-Wahab, "Nonlinear transient isogeometric analysis of FG-CNTRC nanoplates in thermal environments", Composite Structures, Vol. 201, pp 882-892, 1 October 2018