

Band gap tuning based on adjustable stiffness of local resonators

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Bandgap dynamics in locally resonant metastructures : a general theory of internal resonator coupling

Alimohammadi, Hossein; Vassiljeva, Kristina; HosseinNia, S. Hassan; **Petlenkov, Eduard** Applied Sciences (Switzerland) 2024 / art. 2447 <https://doi.org/10.3390/app14062447> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Enhancing bandgap depth in locally resonant metastructures via notch-filtered piezoelectric actuation

Alimohammadi, Hossein; Vassiljeva, Kristina; HosseinNia, S. Hassan; **Petlenkov, Eduard** 2024 IEEE International Conference on Industrial Technology (ICIT) 2024 <https://doi.org/10.1109/ICIT58233.2024.10540976> [Conference Proceedings at Scopus](#) [Article at Scopus](#)

An evolutionary field theorem : evolutionary field optimization in training of power-weighted multiplicative neurons for nitrogen oxides-sensitive electronic nose applications

Alagoz, Baris Baykant; Simsek, Ozlem Imik; Ari, Davut; **Tepljakov, Aleksei; Petlenkov, Eduard; Alimohammadi, Hossein** Sensors 2022 / art. 3836 <https://doi.org/10.3390/s22103836> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Exploring internally coupled resonator's dynamics and spatial variability in metamaterials for vibration suppression

Alimohammadi, Hossein; Vassiljeva, Kristina; HosseinNia, S. Hassan; **Petlenkov, Eduard** Active and Passive Smart Structures and Integrated Systems XVII 2024 / art. 1294614 <https://doi.org/10.1117/12.3024067> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Exploring the real-world challenges and efficacy of internal coupling in metastructures : an experimental perspective

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Gray box time variant clogging behaviour and pressure drop prediction of the air filter in the HVAC system

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Harvesting energy and stability insights in internally coupled resonator systems

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A NARX model reference adaptive control scheme: Improved disturbance rejection fractional-order PID control of an experimental magnetic levitation system

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Nonlinear dynamics in PEH for enhanced power output and vibration suppression in metastructures

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Piezoelectric compensation of structural damping in metamaterial beams: stability and performance analysis

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Predict the remaining useful life in HVAC filters using a hybrid strategy

Alimohammadi, Hossein; Vassiljeva, Kristina; Petlenkov, Eduard; Kull, Tuule Mall; Thalfeldt, Martin CLIMA 2022: the 14th REHVA HVAC World Congress, 22nd – 25th May in Rotterdam, The Netherlands 2022 / p. 1-8 <https://doi.org/10.34641/clima.2022.273>

Stability analysis and energy harvesting in lumped parameter systems with internally coupled resonators

Alimohammadi, Hossein; Vassiljeva, Kristina; HosseinNia, S. Hassan; **Petlenkov, Eduard** JVC/Journal of Vibration and Control 2024 / 13 p. : ill <https://doi.org/10.1177/10775463241241161> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)