

# Publications

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## Browse GEIST publications by year

You can browse GEIST members' publication from last years below:

### 2022

1. K. Kutt, D. Drażyk, L. Żuchowska, M. Szelażek, S. Bobek, and G. J. Nalepa, "**BIRAFFE2, a multimodal dataset for emotion-based personalization in rich affective game environments**," *Sci. Data*, vol. 9, no. 1, p. 274, 2022, doi: [10.1038/s41597-022-01402-6](https://doi.org/10.1038/s41597-022-01402-6).
2. J. Jakubowski, P. Stanisiz, S. Bobek, and G. J. Nalepa, "**Anomaly Detection in Asset Degradation Process Using Variational Autoencoder and Explanations**," *Sensors*, vol. 22, no. 1, p. 291, 2022, doi: [10.3390/s22010291](https://doi.org/10.3390/s22010291).
3. K. Kutt, P. Sobczyk, and G. J. Nalepa, "**Evaluation of Selected APIs for Emotion Recognition from Facial Expressions**," in *Bio-inspired Systems and Applications: from Robotics to Ambient Intelligence - 9th International Work-Conference on the Interplay Between Natural and Artificial Computation, IWINAC 2022, Puerto de la Cruz, Tenerife, Spain, May 31 - June 3, 2022, Proceedings, Part II*, 2022, vol. 13259, pp. 65–74, doi: [10.1007/978-3-031-06527-9\\_7](https://doi.org/10.1007/978-3-031-06527-9_7).
4. J. Jakubowski, P. Stanisiz, S. Bobek, and G. J. Nalepa, "**Performance of Explainable {AI} Methods in Asset Failure Prediction**," in *Computational Science - ICCS 2022 - 22nd International Conference, London, UK, June 21-23, 2022, Proceedings, Part IV*, 2022, vol. 13353, pp. 472–485, doi: [10.1007/978-3-031-08760-8\\_40](https://doi.org/10.1007/978-3-031-08760-8_40).
5. M. Kuk, S. Bobek, and G. J. Nalepa, "**Comparing Explanations from Glass-Box and Black-Box Machine-Learning Models**," in *Computational Science - ICCS 2022 - 22nd International Conference, London, UK, June 21-23, 2022, Proceedings, Part III*, 2022, vol. 13352, pp. 668–675, doi: [10.1007/978-3-031-08757-8\\_55](https://doi.org/10.1007/978-3-031-08757-8_55).

### 2021

1. V. Rodriguez-Fernández, A. Trzcionkowska, A. González-Pardo, E. Brzychczy, G. J. Nalepa, and D.

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2. M. Kuk, S. Bobek, and G. J. Nalepa, “**Explainable clustering with multidimensional bounding boxes**,” in *8th IEEE International Conference on Data Science and Advanced Analytics, DSAA 2021, Porto, Portugal, October 6-9, 2021*, 2021, pp. 1–10, doi: [10.1109/DSAA53316.2021.9564220](https://doi.org/10.1109/DSAA53316.2021.9564220).
  3. L. Żuchowska, K. Kutt, and G. J. Nalepa, “**Bartle Taxonomy-based Game for Affective and Personality Computing Research**,” in *Proceedings of the Twelfth International Workshop Modelling and Reasoning in Context (MRC 2021) co-located with the 30th International Joint Conference on Artificial Intelligence (IJCAI 2021), Montréal, Quebec, Canada, August 19-20, 2021*, 2021, vol. 2995, pp. 51–55, [Online]. Available: <http://ceur-ws.org/Vol-2995/paper7.pdf>.
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  6. S. Bobek and G. J. Nalepa, “**Introducing Uncertainty into Explainable AI Methods**,” in *Computational Science - ICCS 2021 - 21st International Conference, Krakow, Poland, June 16-18, 2021, Proceedings, Part VI*, 2021, vol. 12747, pp. 444–457, doi: [10.1007/978-3-030-77980-1\\_34](https://doi.org/10.1007/978-3-030-77980-1_34).
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  11. K. Kutt, P. Nowara, R. Szczur, G. Barnowska, and G. J. Nalepa, “**Smart Data for Goods and Vehicle Monitoring - Practical Considerations on Data Semantization**,” in *33rd IEEE International Conference on Tools with Artificial Intelligence, ICTAI 2021, Washington, DC, USA, November 1-3, 2021*, 2021, pp. 1216–1220, doi: [10.1109/ICTAI52525.2021.00192](https://doi.org/10.1109/ICTAI52525.2021.00192).
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  14. K. Kutt, D. Drajczyk, S. Bobek, and G. J. Nalepa, “**Personality-Based Affective Adaptation Methods for Intelligent Systems**,” *Sensors*, vol. 21, no. 1, p. 163, 2021, doi: [10.3390/s21010163](https://doi.org/10.3390/s21010163).
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## 2020

1. S. Bobek, M. M. Tragarz, M. Szelązek, and G. J. Nalepa, **“Explaining Machine Learning Models of Emotion Using the BIRAFFE Dataset,”** in *Artificial Intelligence and Soft Computing - 19th International Conference, ICAISC 2020, Zakopane, Poland, October 12-14, 2020, Proceedings, Part II*, L. Rutkowski, R. Scherer, M. Korytkowski, W. Pedrycz, R. Tadeusiewicz, and J. M. Żurada, Eds. Springer, 2020, pp. 290–300, doi: [10.1007/978-3-030-61534-5\\_26](https://doi.org/10.1007/978-3-030-61534-5_26).
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3. G. J. Nalepa, M. Atzmueller, M. Araszkievicz, and P. Novais, Eds., **“Proceedings of the 2nd Explainable AI in Law Workshop (XAILA 2019) co-located with 32nd International Conference on Legal Knowledge and Information Systems (JURIX 2019), Madrid, Spain, December 11, 2019,”** 2020, vol. 2681, [Online]. Available: <http://ceur-ws.org/Vol-2681>.
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7. S. Bobek, A. Trzcionkowska, E. Brzychczy, and G. J. Nalepa, **“Cluster Discovery from Sensor Data Incorporating Expert Knowledge,”** in *Proceedings of the International Workshop on Knowledge Representation and Representation Learning co-located with the 24th European Conference on Artificial Intelligence (ECAI 2020), Virtual Event, September, 2020*, 2020, vol. 3020, pp. 10–21, [Online]. Available: [KR4L\\_paper\\_5.pdf](#).

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2. M. Z. Łepicki and S. Bobek, **“Affective Context-Aware Systems: Architecture of a Dynamic Framework,”** in *Artificial Intelligence and Soft Computing - 18th International Conference, ICAISC 2019, Zakopane, Poland, June 16-20, 2019, Proceedings, Part II*, 2019, vol.

- 11509, pp. 575–584, doi: [10.1007/978-3-030-20915-5\\_51](https://doi.org/10.1007/978-3-030-20915-5_51).
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  7. P. Jemioło, B. Giżycka, and G. J. Nalepa, “**Prototypes of Arcade Games Enabling Affective Interaction**,” in *Artificial Intelligence and Soft Computing - 18th International Conference, ICAISC 2019, Zakopane, Poland, June 16-20, 2019, Proceedings, Part II*, 2019, vol. 11509, pp. 553–563, doi: [10.1007/978-3-030-20915-5\\_49](https://doi.org/10.1007/978-3-030-20915-5_49).
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**2018**

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