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Example of Article for International Journals of Electronics and Telecommunications

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***Abstract*—The abstract goes here. Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.**

***Keywords*—IEEEtran, journal, LaTeX, paper, template**

I. Introduction

THIS demo file is intended to serve as a "starter file" for IEEE journal papers produced under LaTeX using IEEEtran.cls version 1.7 and later.

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a)  b) 

Fig. 1. Exemplary image of Lena

computational coprocessors in classical ICT systems, but so far only for a confined set of problems [3]. Search goes on widening this set.

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II. Theory

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$$\alpha + \beta = \gamma \tag{1}$$

A. Subsection Heading Here

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- one,
- two,
- three.

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III. Experiment

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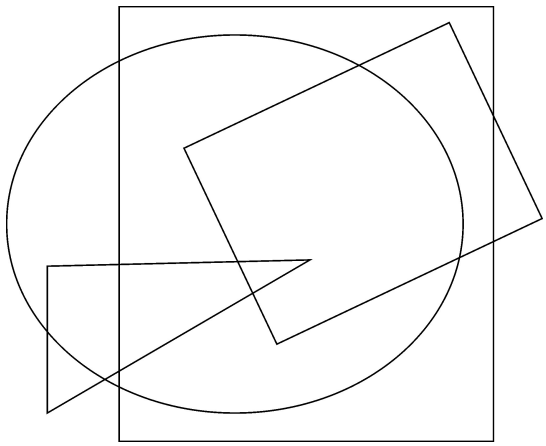

Fig. 2. Explain the significance of the figure in the caption

TABLE I
RESULTS OF SIMULATION

header	abc	ijk	xyz	θ
one	0.1	0.01	0.001	0.0001
two	1.1	2.2	3.3	4.4
three	1.1	2.2	3.3	4.4

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$$\frac{dP}{dt} \approx \frac{P_{k+1} - P_k}{T} \tag{2}$$

2) Subsubsection Heading Here: Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

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TABLE II
SIMULATION TIMES OF EACH SCENARIO

	White [s]	Black [s]	White to Black
scenario 1	5	15	3 x faster
scenario 2	3	21	7 x faster
scenario 3	4	24	6 x faster
scenario 4	7	56	8 x faster
scenario 5	10	120	12 x faster
scenario 6	12	24	2 x faster

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IV. CONCLUSIONS

Any comments and suggestions are welcomed so we can constantly improve this template to satisfy all authors' research needs.

V. CONCLUSION

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anim id est laborum.Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua [3], [12]–[15]. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

ACKNOWLEDGMENT

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REFERENCES

[1] E. Chitambar and G. Gour, "Quantum resource theories," *Reviews of modern physics*, vol. 91, no. 2, 2019. [Online]. Available: https://doi.org/10.48550/arXiv.1806.06107

[2] CISCO, "Post quantum security brief," 2020. [Online]. Available: https://www.cisco.com/c/en/us/products/collateral/optical-networking/solution-overview-c22-743948.html

[3] J. Preskill, "Quantum computing in the nisq era and beyond," *Quantum*, vol. 2, p. 79, 2018. [Online]. Available: https://doi.org/10.48550/arXiv.1801.00862

[4] Sebastiano, Fabio et al., "Cryogenic CMOS interfaces for quantum devices," in *2017 7th IEEE International Workshop on Advances in Sensors and Interfaces (IWASI)*, 2017, pp. 59–62. [Online]. Available: https://doi.org/10.1109/IWASI.2017.7974215

[5] D. Leermakers and B. Skoric, "Quantum alice and silent bob: Qubit-based quantum key recycling with almost no classical communication," 2020. [Online]. Available: https://doi.org/10.48550/arXiv.2003.11799

[6] Wang, Zewei et al., "Designing EDA-Compatible Cryogenic CMOS Platform for Quantum Computing Applications," in *2021 5th IEEE Electron Devices Technology Manufacturing Conference (EDTM)*, 2021, pp. 1–3. [Online]. Available: https://doi.org/10.1109/EDTM50988.2021.9420957

[7] Stefanovic, Danica and Kayal, Maher, *Structured Analog Design*. Springer Netherlands, 2008.

[8] Simoen, Eddy and Claeys, Cor, "Impact of CMOS processing steps on the drain current kink of NMOSFETs at liquid helium temperature," *IEEE Transactions on Electron Devices*, vol. 48, no. 6, pp. 1207–1215, 2001. [Online]. Available: https://doi.org/10.1109/16.925249

[9] Shin, Minju et al., "Low temperature characterization of 14nm FDSOI CMOS devices," in *2014 11th International Workshop on Low Temperature Electronics (WOLTE)*, 2014, pp. 29–32. [Online]. Available: https://doi.org/10.1109/WOLTE.2014.6881018

[10] Blokhina, Elena and et al., "CMOS Position-Based Charge Qubits: Theoretical Analysis of Control and Entanglement," *IEEE Access*, vol. 8, pp. 4182–4197, 2020. [Online]. Available: https://doi.org/10.1109/ACCESS.2019.2960684

[11] V. Dunjko, J. M. Taylor, and H. J. Briegel, "Quantum-enhanced machine learning," *Phys. Rev. Lett.*, vol. 117, p. 130501, Sep 2016. [Online]. Available: https://doi.org/10.1103/PhysRevLett.117.130501

[12] L. S. Pontryagin, *The Mathematical Theory of Optimal Processes*. New York: Interscience, 1962.

[13] K. S. Shenoy, D. Y. Sheth, B. K. Behera, and P. K. Panigrahi, "Demonstration of a measurement-based adaptation protocol with quantum reinforcement learning on the ibm q experience platform," *Quantum Information Processing*, vol. 19, no. 5, p. 161, Apr 2020. [Online]. Available: https://doi.org/10.1007/s11128-020-02657-x

[14] K. Shao, Z. Tang, Y. Zhu, N. Li, and D. Zhao, "A survey of deep reinforcement learning in video games," *CoRR*, vol. abs/1912.10944, 2019. [Online]. Available: https://doi.org/10.48550/arXiv.1912.10944

[15] J. Kober, J. A. Bagnell, and J. Peters, "Reinforcement learning in robotics: A survey," *The International Journal of Robotics Research*, vol. 32, no. 11, pp. 1238–1274, 2013. [Online]. Available: https://doi.org/10.1177/0278364913495721