

CALL FOR PAPERS

17th International Conference on Design of Reliable Communication Networks
Technically Co-Sponsored by IEEE Communications Society (IEEE ComSoc)

<http://www.drcn2021.polimi.it>

April 19-22, 2021 – Milan, Italy

SCOPE

Since its creation in 1998, the *International Conference on the Design of Reliable Communication Networks (DRCN)* has become over the years a well-established forum for scientists from both industry and academy who have interest in reliability and availability of communication networks, and related resilience topics. The aim of the conference is to bring together people from various disciplines, ranging from engineering of survivable equipment and network technologies to network management and monitoring, through methods and models for survivable and robust network design. As such, DRCN is a well-known forum for presenting excellent results and new challenges in the field of reliable communication networks and services.

We are pleased to invite you to contribute and participate in the 17th edition of DRCN in Milan, Italy, on April 19-22, 2021.

Authors are invited to submit their contributions in the form of a **Regular paper** and/or **Demo paper**.

Topics of interest for submission include, but are not limited to:

- Resilience in 5G networks and services
- Ultra-Reliable Low-Latency Communications (URLLC)
- Design of resilient and reliable IoT systems
- Resilience in Software-Defined Networking (SDN)
- Secure and reliable quantum communications
- Resilience in satellite communication networks
- High availability for Network Functions Virtualization (NFV) infrastructures
- Network dependability in cloud networking
- Dependability and reliability of wireless/cellular/mobile networks
- Resilience in FSO/VLC communications
- Survivability and traffic engineering for optical, IP and multi-layer networks
- Robustness of multi-domain networks
- Survivability in grid and distributed computing
- Reliability and resiliency of data center networks
- Recovery of overlay and peer-to-peer networks
- Risk and reliability in the Internet and enterprise networks
- Communication reliability for smart city applications and intelligent transport systems
- Methods for survivable network and systems design, analysis, and operation
- Planning and optimization of reliable networks, systems, and services
- Network reliability analysis
- Reliability and robustness of networks optimized and managed based on AI/ML techniques
- Data analytics and Machine Learning for fault diagnosis
- Network coding techniques to improve resilience
- Service differentiation based on recovery methods
- Simulation techniques for network resilience
- Quality of Experience (QoE) and network service availability assessments
- Reliability requirements and metrics for users, businesses, and the society
- Robustness of compound services
- Resilience and security of networked critical infrastructures
- Network robustness to natural disasters
- Robust network design for hostile environments
- Security issues in networks and their relation to survivability
- Network dependability and energy consumption trade-offs
- Network resilience combined with economics and commercial issues
- Standardization of network resilience and reliability
- Public policy issues for survivability and resilience
- Design and test of reliable operational technology (OT) networks

REGULAR PAPER SUBMISSION

The authors are invited to submit high-quality original technical papers for presentation at the conference and publication in the DRCN 2021 Proceedings.

Only PDF files will be accepted for the review process and all submissions must be done electronically through EDAS, using the following submission link:

<https://edas.info/N27800>

or

<https://edas.info/newPaper.php?c=27800>

All submissions must be written in English and must use standard IEEE two-column conference templates that can be downloaded from: <https://www.ieee.org/conferences/publishing/templates.html>.

Papers should be maximum 6 page long and minimum 4 page long, including tables, figures and references. Accepted papers longer than 6 pages will be charged for each extra page. Papers cannot be longer than 8 pages.

At least one author of each accepted paper is required to register to DRCN 2021 to have his/her paper published in the conference proceedings. The paper must be presented at the conference by one author to be submitted for publication in IEEE Xplore.

Most highly-scored paper will be invited to submit their work to IEEE Transactions on Network and Service Management.

Please contact <https://edas.info/help.php?c=27800> or francesco.musumeci@polimi.it if you have any questions about submitting your manuscript.

----- DEMO PAPER SUBMISSION

Prospective contributors are expected to turn in a demo proposal in the form of a 3-page paper in IEEE conference double-column format, preferably incorporating a demo system architecture illustration. Demo papers will be peer-reviewed and accepted demo papers will be included in the electronic conference/workshops proceedings bundle provided to DRCN 2021 attendees, and will be subsequently submitted to IEEE Xplore. The paper should incorporate the following information:

- Title
- Author's names and affiliation
- Abstract
- Description
- Key networking concepts involved, what will be demonstrated, and distinguishing aspects with respect to previous related work
- Prototype illustrations
- Highlights of the innovation, with a clear description of novel ideas in Network Reliability
- A crisp list of individual items that will be demonstrated
- Relevant references, in particular if the demo is related to a paper being submitted in the main conference

Demonstration proposal papers should be submitted through the EDAS entry of DRCN 2021 or using the following url <https://edas.info/N27800>, and selecting "Demo Paper" Track. Only PDF files will be accepted. The demo proposals will be reviewed by the DRCN Technical Program Committee and will be approved based on availability of demo space as well as on the following criteria:

- Adherence to DRCN 2021 scope
- Significance of the research contribution
- Potential impact on the area
- Quality of the proposed implementation
- Presentation quality

At least one author of each accepted demo proposal is required to register for the DRCN 2021 main conference and present the demo at the scheduled demo session(s).

VENUE

The conference will take place at Politecnico di Milano, Milan, Italy.

SPECIAL COVID-19 NOTICE

The conference will be designed and prepared as a hybrid event allowing registrants the choice to participate either virtually or in-person. In the case of perduring traveling restrictions (official or de facto) during the conference dates due to the COVID-19 pandemic, we will be ready to convert the conference to a fully-online event.

IMPORTANT DATES

REGULAR PAPERS

Submission deadline: ~~November 10, 2020~~ **January 3, 2020**

Notification to authors: **January 15, 2021**

Camera Ready Papers: **February 7, 2021**

DEMO PAPERS

Proposal submission deadline: **January 15, 2021**

Notification to authors: **February 15, 2021**

Camera Ready Papers: **February 28, 2021**

GENERAL CO-CHAIRS

Guido Maier, *Politecnico di Milano, Italy*

Kohei Shiimoto, *Tokyo City University, Japan*

TECHNICAL PROGRAM CO-CHAIRS

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Francesco Musumeci, *Politecnico di Milano, Italy*

Giacomo Verticale, *Politecnico di Milano, Italy*

LOCAL ORGANIZING COMMITTEE

Omran Ayoub (omran.ayoub@polimi.it), *Politecnico di Milano, Italy*

Ligia Moreira Zorello, *Politecnico di Milano, Italy*

EDAS VERSION

{UNSUBSCRIBE}

{name} {shortname}

{url}

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[We sincerely apologize if you receive multiple copied of this CFP.]

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