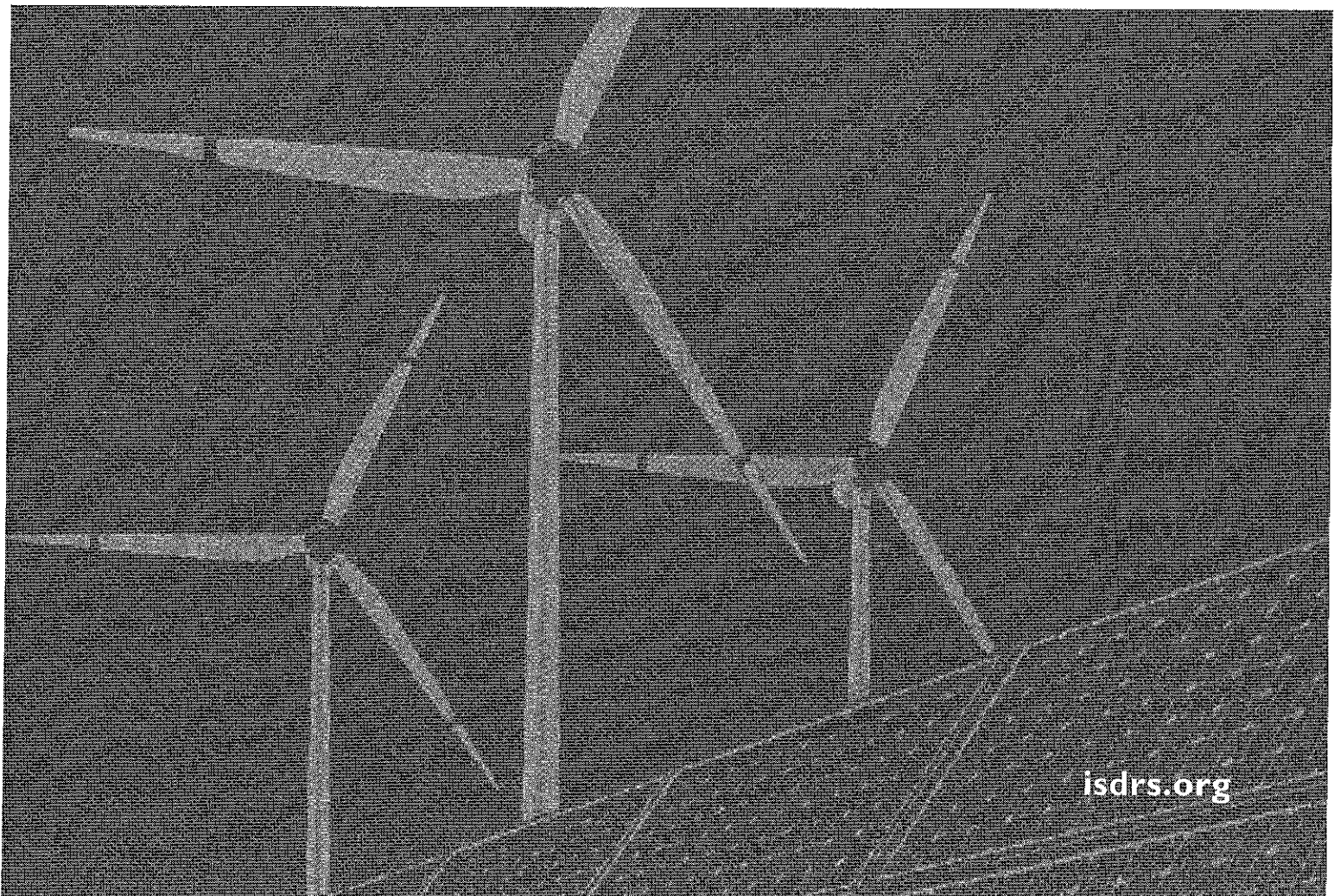


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Accelerating the progress towards
the 2030 SDGs in times of crisis

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Smart Villages: A review of the state of the art

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Abstract

Over the last two decades, communities have faced many challenges. Together with environmental concerns, above all the climate change phenomenon, and the economic recession, since the beginning of the 2020 the Covid-19 pandemic crisis is threatening both urban and rural societies. There is an ongoing debate among policy makers, scholars and economic operators on how to cope with these pressures and technological innovation/ICT is often seen as a mean for helping local communities by making “smarter” societies.

If, on the one hand, the notion of “smartness” has fuelled the debate when referring to urban areas, and has led to a recognized definition of smart city, on the other hand there is not a universally accepted paradigm for translating it into rural areas, yet. The “Smart Villages” concept, in fact, is quite new; in the European Union, the Smart Village Initiative was launched by the European Parliament in 2017, and, in the same year, the EU Action for Smart Villages document was published by the European Commission together with the European Parliament. This was the starting point in Europe in order to define the conceptual framework for speculating on how to apply smart solutions in rural areas at different levels, from the general policies to the operational applications. This contribution aims at providing a state of the art of the literature review inherent to the topic. For reaching this goal, a bibliometric study has been carried out by questioning the two main scientific databases, i.e. Scopus and Web of Science, using “smart village” as a keyword (20th January 2021). 316 papers containing the wording “smart village” in the title and/or keywords and/or abstract have been detected. After checking the results for avoiding overlapping, a total of 219 has been selected to be examined. 87% of the total was published from 2017 onwards; with 55 publications moreover, 2020 represents the year with the highest number of manuscripts related to the topic, showing and increasing interest in the issue. Furthermore, as regards the type of publication, the survey lists 104 articles, 33 book chapters and 82 conference papers. This study will contribute on the accelerating progress towards SDG’s in times of crisis by providing an in-depth overview of this topic for defining potential research gaps as well as possible avenues of research, and it has to be seen particularly related to the “SDG 11: *Make cities and human settlements inclusive, safe, resilient and sustainable*”, targets 11.a and 11.b.

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Smart Villages: A review of the state of the art

Introduction

- Over the last two decades, communities have faced many challenges.
- Environmental concerns, economic recession and the recent Covid-19 pandemic crisis are threatening both urban and rural societies.
- Technological innovation/ICT is often seen as a mean for facing these challenges by boosting “smarter” communities.

The “Smart Village” notion

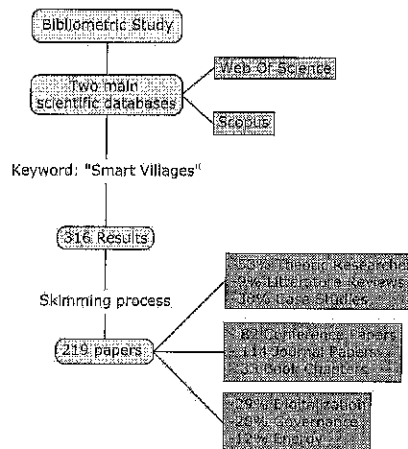
- In the European Union, the Smart Village Initiative was launched in 2017.
- “EU Action for Smart Villages” was the starting point to define the conceptual framework for defining what and how to apply smart solutions in rural contexts.

Aim of the study

- This study aims at presenting the upgraded state of the art of the scientific research on Smart villages.

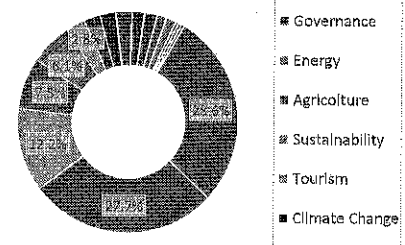
Methodology

- A bibliometric analysis has been carried out by questioning Scopus and Web of Science databases, using “Smart Villages” as a key word (last update: 20/01/2021).

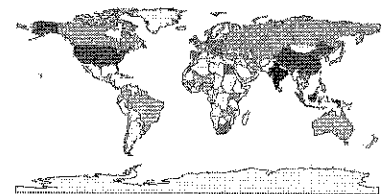


- The survey has listed 104 articles, 33 book chapters and 82 conference papers.
- 120 out of 219 contributes deal with theoretical research, 80 describe case studies and 19 are literary reviews.
- Around 29% of the articles focus on digitization and 28% on governance.

Thematic areas of the papers



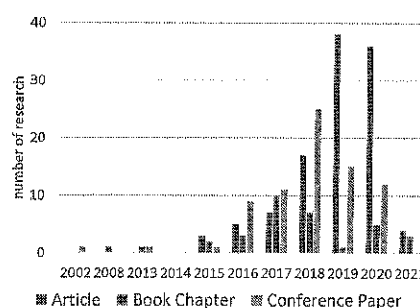
- In terms of “First Author’s origin”, the majority of the contributions comes from Asia and North America (55 and 14 respectively from India and the US).



Number of Papers per Nation
 0
 1
 2-5
 6-10
 11-25
 26-55

Preliminary results

- The research yielded 319 results
- After refining the research 219 papers have been selected.
- Approximately 87% of the papers were published starting from 2017 (55 papers in 2020).



Acknowledgments

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