

## Guidelines to write and submit your contribution

### Submission deadlines:

- > Declaration of intent: October 15<sup>th</sup>, 2017
- > Extended abstract submission: ~~November 20<sup>th</sup>, 2017~~  
>> extended to November 27!

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## HOW TO SUBMIT YOUR CONTRIBUTION

### Steps to submit your proposal:

- A declaration of intent may be submitted by October 15<sup>th</sup>, 2017 (*optional*)
- The extended abstract must be submitted by ~~November 20<sup>th</sup>~~ >> **extended to November 27<sup>th</sup>, 2017!**

To submit your contribution, please use the [SciencesConf online system](#).

You will find below the guidelines to write your extended abstract.

### 1) Guidelines to fill in the declaration of intent online form:

Create an account on the [SciencesConf online system](#) (or connect to your account with your user name and password). In the left menu, click on "Call for papers", then on "Submit".

**1 - "METADATA"** - Please complete the fields of the form for each of your contributions (Title, Abstract, Type, Topic - *please note that topic A, B or C is restricted to Novatech Awards* - Language of text, Keywords)


**2 - "AUTHOR(S)"** - Warning: if your contribution includes co-authors please add their names and contact information by clicking on "Add an author" on the author page. "Research team" is a required field, simply put the name of your organisation.

**3 - "FILE(S)"** - **Please do not add any file at that step of the process.**

**4 - "OVERVIEW"** - Once the form is filled in, click on "Submit". You will receive an automatic confirmation email, followed by a validation email sent by the secretariat for you to submit your extended abstract.

## II) Guidelines to submit your extended abstract:

Once you have received your validation email from the secretariat, you can submit your extended abstract. It must be submitted by November 20th, 2017 at the latest, in **WORD format**, and comply with the compulsory [I.S.Rivers template](#).

- Connect to your SciencesConf account.
- In the "Submissions" menu, you will find your declaration(s) of intent. Click on the  "Add the paper" icon of the one for which you wish to submit an abstract;
- You will directly access the file upload page. Click on "Choose file" to select your Word file, then on "Upload". Click on "Next step", and at last on "Submit".

### CANDIDACY FOR PUBLICATION IN AN INTERNATIONAL SCIENTIFIC JOURNAL

If you are candidate for publication in an international journal:

- Select "**Oral + publication in an international scientific journal**" in the field "Type" of the online system.
- Your abstract must be written in **English**.
- If your abstract is shortlisted, you will be asked to provide a **full paper of 8 to 10 pages by October 2018**.

## GUIDELINES

We kindly ask authors to provide their article in electronic format as a Word-processed file.

You are asked to strictly follow the instructions detailed below. To facilitate your work, you should use the [I.S.Rivers template](#) Word document detailing all the styles you need to use.

The definitive format of the proceedings will be an A4 format - 21 cm x 29.7 cm.

If you follow these recommendations, your document will be published as received in its Word format (except for the pagination).

## A WORD-PROCESSED FILE

### The document format:

Your Word-processed file, including illustrations, must be compatible with Word 2007 or any newer version of Word.

### File name:

Please name your file (1) with the name of the corresponding author if you did not submit a declaration of intent; (2) as follow if you submitted a declaration of intent: abstract reference, dash, and name of the corresponding author. Example: 47715-fletcher

### Illustrations, figures and tables:

- Illustrations should not be produced within the text (use Power Point, Illustrator, Excel, etc.); do not create illustrations directly using MS Word as it is not stable.
- Any object coming from a specific application software should be transformed into an image format before importation to the Word-processed file; you should check the weight of the images and possibly reduce them to an adapted size and quality.
- Importation of illustrations into the main document: please make sure that all figures and tables fit inside the specified text area. Legends must be written exclusively in the text file.
- We recommend that you test the Acrobat file conversion and check your illustrations, figures and special characters. If we encounter problems with the illustrations of your document, we will ask you to send us an updated version.

# DETAILED INSTRUCTIONS

Please use the [I.S.Rivers template](#).

## 1 - Document layout

### a - Number of pages:

The typescript is limited to **3 pages** including charts, tables and list of references (3 maximum).

### b - Page one will contain:

- The English title of the contribution, size 14 bold, lowercase
- The French translation of the title, size 14, lowercase
- Name of the author(s), size 12, lowercase
- Author(s)' affiliation(s) and full postal address, size 10, lowercase
- **RÉSUMÉ**: a French abstract (10-15 lines), please ask for professional translation if needed
- **ABSTRACT**: an English abstract (10-15 lines),
- **KEYWORDS**: 5 maximum, in alphabetical order.

**All the above must fit on one page.** The introduction should start on the second page.

**c - The following pages will contain the text of your abstract**, as well as illustrations, figures, tables and the list of references.

## 2 - Format of the document

**a - Margins** are the following (with reference to an A4 sheet: 210 x 297 mm):

Right and left margins: 2.5 cm

Top and bottom margins: 2.5 cm

The area for typing is: 17 cm x 24.7 cm

**b - Text** should be typed using automatic line spacing, an Arial 10 pt justified typeface, with a 6 pt space for paragraphs. Do not add any "comment" into the text.

**c - Use decimal notation for subheadings** 1. 1.1. 1.1.1.

**LEVEL 1.: SIZE 12 UPPERCASE BOLD**, space before 10 pt, typed flush left

**Level 1.1.: size 12 bold**, space before 6 pts, typed flush left

**Level 1.1.1.: size 10 italics bold**, space before 6 pts, typed flush left

Legends for figures and illustrations: under the object, centred, size 9; Legends for tables: above the object, centred, size 9; Legends must be written in the text, please do not add them directly to the figures.

List of references: Arial 9 – indented paragraph: - 0,5 cm – space before 3 pt.

**d - References** should be listed at the end of the abstract, in alphabetical order of authors.

The normal form of listed references is as follow:

Lee, S.E., Jenkin, D., Koopman, B.L. and Lewis, R. (1982). The effect of aeration basin configuration on activated sludge bulking at low organic loading. *Wat. Sci. & Tech.*, 14(6/7), 407-427.

Abell, B.C., Tagg, R.C. and Push, M. (1974). Enzyme catalyzed cellular transaminations. In: *Advances in Enzymology*, A.F. Round (Ed.), Vol.2, 3rd ed. Academic Press, New York, 125-247.

Grady, C.P.L. and Lim, H. (1980). *Biological Wastewater Treatment: Theory and Application*. Marcel Dekker, New York.

### 3 - Abstract structure

**Avoid being too general in your text and focus on the theme chosen for your contribution.**

The general framework of the extended abstract will be as follow:

- Introduction: background and aims of the work
- Methods: a brief description of the methods / techniques used
- Results and discussion: a clear presentation of the results obtained, highlighting any trends or points of interest.
- Conclusion: a brief explanation of the significance and implications of the work reported.
- A list of bibliographical references (3 maximum).

## PROCEEDINGS PUBLISHING

The proceedings will be published in three formats:

1. A printed version of the French/English summaries – i.e. the first page of the extended abstract – will be given to the attendees during the I.S.Rivers 2018 conference.
2. The whole proceedings will be available on the I.S.Rivers website a few days before the conference.

# **Integrated control of sewer and WWTP based on the assessment of treatment capacity**

Gestion intégrée du réseau et de la station d'épuration basée sur l'évaluation de la capacité d'épuration

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## **RÉSUMÉ**

Un pré-requis pour une gestion intégrée du réseau d'assainissement et de la station d'épuration est une commande du débit à l'entrée de la station d'épuration en fonction de sa capacité. Cela nécessite des informations fiables sur l'état actuel de la station d'épuration et sa réaction aux variations hydrauliques, aux variations de charges en COD et en substances nutritives. Actuellement, la plupart des stratégies de commande qui sont proposées sont fondées sur des études de modèles hypothétiques. Dans cette communication, la réaction de trois grosses stations d'épuration soumises à des charges élevées par temps de pluie est analysée, en se fondant sur les valeurs mesurées en ligne sur une période de plusieurs années. Dans les trois cas, les principaux facteurs limitant l'augmentation de la charge ont été les procédés de la décantation dans le clarificateur secondaire et la capacité de nitrification. Dans l'une des études de cas, des stratégies de contrôle prédictif ont été développées en observant ces procédés qui sont pilotés par le contrôle des effluents. Des tests avec un modèle intégré du réseau et de la station d'épuration montrent que l'efficacité d'une commande du débit sur les flux rejetés varie de manière significative avec l'intensité de la pluie.

## **ABSTRACT**

A prerequisite for an integrated control of sewer and wastewater treatment plant (WWTP) is a capacity driven inflow control to WWTP. This requires reliable information about the current status of WWTP operation and its behaviour on varying hydraulic, COD and nutrient loads. So far most of the proposed control strategies are based on hypothetical modelling studies. In this paper the behaviour of three large WWTPs on increased storm water loads is analysed based on online measurements of several years. In all cases the main limiting factors for an increase of load were the sedimentation processes in the secondary clarifier and the nitrification capacity. In one case study predictive control strategies have been developed observing these processes which are backboned by effluent control. Test using an integrated model of sewer and WWTP demonstrate that efficiency of inflow control on emission load varies significantly with rain intensity.

## **KEYWORDS**

Integrated control, stormwater, treatment capacity, urban drainage systems, waste water treatment plant.