****PREPARATION OF 1-PAGE ABSTRACT****

A Proceedings book will be published before the opening ceremony of the **ESAFS 2019 (Nov. 3-7, 2019)**.

**The deadline for submitting extended abstract with a submission form as a cover is August 01, 2019. The abstract will be included into the Proceedings book, only when registration fee has been paid before Oct. 05, 2019 (for details please see the final announcement).**

Please follow the instructions given below when preparing your abstract.

**Abstract**

Abstracts should not exceed 1 page without pagination and should be written in Standard (either American or British Style) English only.

The abstract should be typed in single space and all margins be kept with 3 cm in one column, as shown below.

**Font: Times New Roman; Size: 14 pt and bold for title, and 10 pt for other parts.**

The manuscript should include abstract and keywords. Authors may divide abstract content into paragraphs.

**Title**

The titleshould provide a concise statement of the contents.

**Author(s) and Affiliation(s)**

Please just give family name(s) and initials of the author(s), no titles such as Prof., Dr., Mrs. Etc. are needed. The name of the author, who is to present, should be underlined. Then the name(s) and address(es) of the institution(s) where the work was carried out, followed by the E-mail address(es) of the author(s).

**Abstract and key words**

The abstract should contain the aim of the research, the main findings of the research project and a brief conclusion. Authors are asked to suggest not more than six **Key words** in sequence order, and separated by commas. **Key words** should be put after the**Abstract**.

**Illustrations, photographs and tables (optional)**

- Figures, photographs and tables (if needed) should be included into the text and fit in one (or combined) column inline.

- Captions to tables should be given above each table.

- Captions to figures should be given below each figure.

- Line drawings should be in a form suitable for reproductions without modification.

- Extremely small type should be avoided.

- Legends and text in figures should be inserted.

- Photographs should preferably be grayscale and high contrast glossy prints.

**Abbreviations and Units:**

- Only SI units and abbreviations should be used. Abbreviations should be explained when they first appear in the text. If a non-standard abbreviation is to be used extensively, it should be defined in full at the beginning of the text.

- For mineral contents the elements (P, N, K, etc.) should be used.

- Isotopes should be mentioned as 14C, 32P, etc.

- Ions should be mentioned as H +, Mg2+, etc.

- Latin biological names should be italicized.

**References citation**

Citations (if needed) in the text should be made in alphabetical order by mentioning author and year; in the case of two authors, both should be mentioned, for example: (Chen and Lee, 2007) or Chen and Lee (2007). If several papers by the same author in the same year are cited, they should be lettered in sequence (2000a, b), etc. When papers are by more than two authors they should be cited thus: (Chen et al., 2007). Do not use in list or text: unpublished results or in preparation. In the list, references must be placed in alphabetical order without serial numbering. Please follow the format of reference in the Journal “**Science of the Total Environment**”.

**An example of abstract with submission form was given below (see the next pages)**

**Submission of Manuscripts**

Manuscripts with a submission form as a cover should be submitted in electronic format (Microsoft Word for the PC) to the address [shjien@mail.npust.edu.tw](mailto:shjien@mail.npust.edu.tw)

All elements should be included in **one single file** (Submission Form, Text, References, Figure Legends, Tables and Figures).

**14th International Conference of the East and Southeast Asia Federation of Soil Science Societies (ESAFS)**

**Taipei. Nov. 3-7, 2019**

**Abstract Submission Form**

(This form and the 1-page abstract should be submitted before **August 01, 2019**)

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The submitted abstract will be reviewed by an international referee committee prior to acceptance. Notice with comments will be sent by E-mail before **August 15, 2019** whether the submitted abstract is accepted or not. Registration should be completed and a finalized abstract should be confirmed before **October 05, 2019.**

Please send your extended abstract with this submission form as cover by E-mail to the exclusive account:

[shjien@mail.npust.edu.tw](mailto:shjien@mail.npust.edu.tw)

Secretary General

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**\* Major themes for the conference**

1. Soil education for pre- and elementary-school children: current issues towards setting an international standard
2. Emerging contaminant elements in soil-plant systems
3. Soil information and digital soil mapping
4. Soil Fertility and plant nutrition
5. Soil Ecology
6. Recent advances in paddy soil science: toward establishments of sustainable rice production, environmentally-friendly managements and food safety
7. Soil management and climate change
8. Soil and water management
9. Forest soils
10. Control, remediation and reclamation of soil degradation and soil contamination

**Extended abstract: (next pages)**

**Large Area Phytoremediation Experiment to Study the Uptake of**

**Metals by Twelve Plant Species Growing in the**

**Contaminated Site of Central Taiwan**

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**Abstract**

A 1.3 ha of Cr-, Cu-, Ni-, and Zn-contaminated site in the central Taiwan was used to study the feasibility of phytoextraction. Based on the result of pre-experiment in the site, 12 plant species were selected from 33 plant species and further used for large area phytoremediation experiment in the site. Comparing with the initial plants before planting, most plant species significantly accumulated higher Cr, Cu, Ni, and Zn in their shoots after growing in this contaminated site for 33 d. Among the 12 plant species, those plants that accumulated higher concentration of metals in their shoot were Garden canna and Garden verbena (in the levels of 45-60 mg Cr kg-1), Chinese ixora and Kalanchoe (30 mg Cu kg-1), rainbow pink and sunflower (30 mg Ni kg-1), and French marigold and sunflower (in the levels of 300-470 mg Zn kg-1), respectively. Result of two times of large area phytoremediation experimental demonstrates that phytoextraction is a feasible method to re-use those…

***Key words*:** Heavy metals; large area experiment; phytoextraction; phytoremediation.



Fig. 1. The initial and final concentration of Cr in the shoot of 12 plants which were large area-planting in the metals-contaminated site for 33 d.