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- Fundamental Aspects -

Information Science

(ISFA)

OVERVIEWS Course / Lecture Series **MATERIALS**

Winter Term 2023 / 2024

Dr. rer. nat. Claus-Peter Rückemann
Leibniz Universität Hannover

2023

Notes

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Fundamental Aspects - Information Science

Separate lectures on complementary information science topics in this lecture series:

Lecture i	Computer Science Basics, Notions, Systems, Principles
Lecture ii	Procedural Tools, Processes, Frameworks
Lecture iii	Computing and Demands
Lecture I	Security, Notions, Risks, and Measures
Lecture II	Information Security, Encryption, Governance
Lecture III	Selected Measures, Formal Systems, Digitisation, Value

(Lectures marked in light gray colour are currently not scheduled for this term.)

Notes

Lecture Series, Epitome

Fundamental Aspects - Information Science Lecture Series – Epitome

The complexity of information science methods is steadily increasing. Distributed environments in various disciplines are a main factor. On the other side information systems will have to evolve towards ease of use and implementation, concealing the inherent mechanisms. With this process, security concerns continuously get more important, not only including hardware, software, and networking but also regarding concepts, use cases, and social context.

This course gives an overview of the fundamentals of security of information systems in various computing environments showing mechanisms behind the scenes. Important basics of computer science and security aspects are briefly discussed: hardware and computation systems, software and operating systems as well as various tools, programming languages, and programming paradigms. (Lecture parts i-iii)

Main focus is on security issues regarding applications, internet, protocols, operating systems, firewalls, encryption, steganography, database systems, certificates, digital signatures, intrusion detection, networks, accounting, and licensing issues.

A range of use cases will be discussed in order to acquire an overview from classical to current developments comprising private resource usage, data processing to various up to date implementations for distributed computing environments, Grid computing, and High Performance Computing. (Lecture parts I-III)

For on-site lectures and venues: Basic practical demos/exercises, optional colloquium presentations, a summary and tutorial will complement the course.

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Preliminary Remarks – General Conditions, Online Participation

General conditions with respect to procedures mandatory for this content and exercises

1. **Before the lecture.**
   Clearing process and confirmation for each lecture are mandatory for participation.
   Validity requirements: Participants use their real name and official university email address for all communication and attendance.
   Communication during all steps is strictly only directly with the lecturer.
   Participants have to prepare their computers/clients/applications on their own.
2. **Lecture.**
   Prep. & Presentation parts. / Excercise parts. / Discussion & conclusions parts.
   Participation (video & audio) is only completed if all parts are actively attended.
3. **During the lecture.**
   If any part is missed by any reason: Start at step 1 for future lectures. There will be no communication about technical or associated aspects during a lecture.
   If a lecture has to be cancelled during the time of the lecture this is communicated via the conferencing tool or email. A session may end without further emails.
   Any materials and information distributed for the lecture are strictly only for personal use of confirmed participants in context with the lecture.
   References and further research are communicated during the lecture.
4. **After the lecture.**
   A lecture fully ends after the resp. time frame if not otherwise communicated.

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Preliminary Remarks – Clearing Dialogue

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Clearing:

Clearing dialogue: *No registration without application!*
Registration attempts other than prior application by mail cannot be processed.

The lectures in this lecture series require separate applications due to the fact that attendance and active engagement are compulsory.

The learners ...

- *have to be aware of the trying character of this lecture series.*
- *have to decide upon whether or not it is advantageous for their academic careers to become actively engaged in order to gain credit points.*
- *have to self-evaluate their skills of scientific English.*

Notes

Preliminary Remarks – Clearing Dialogue

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Clearing dialogue, application requests, and replies:

Application requests: *Deadline: [respective deadlines, see Web announcements]*
Regarding application for the lecture, please use the mail subject

Information Science Lecture <INSERT LECTURE MODULE and START DATE HERE>

and directly contact the lecturer at rueckemann (at) luis.uni-hannover.de
In your mail please fully add the information answering the following mandatory items.
Your request cannot be processed without all the required information explicitly given:

Course/Lecture title:
Salutatory address:
Title:
Firstname:
Lastname:
E-mail (affiliation email address, not private address):
Status, employee of Leibniz Universitaet Hannover?:
Institute/Institution:
Status, student?:
Matriculation number (Leibniz Universitaet Hannover):
Degree or grade (already achieved):
Discipline/study programme:

Replies: *Earliest standard replies on application requests will be be sent out a few days before the date of the lecture, if possible. Otherwise, replies will be send on short term if an application deadline is less than a few days ahead of the date of a lecture.*

Notes

Preliminary Remarks – Fine Print

Fine print: Additional formal information:

Conditions of participation: *With your application and registration request you accept the conditions of participating in the Supra-Curricular Approaches to Information Science lectures. Please read the official conditions as published at*
https://www.luis.uni-hannover.de/kurse.html
https://www.luis.uni-hannover.de/fileadmin/kurse/Kurse-Teilnahmebedingungen.pdf

Data protection: *Your personal data will be processed and stored by the Leibniz Universitat IT Services in the context and for the purpose of this service, according to the GDPR. Please read the official conditions as published at*
https://www.uni-hannover.de/de/datenschutzerklaerung/#c47285

ID cards: *Please remember always to bring your student ID card or employee ID card when attending a lecture.*

General information: *Visit the web page of the above institutions for other/further information.*

Short term notice information:

!!!!!!!!! *IN CASE OF ANY SHORT TERM CHANGES PLEASE MONITOR THE WEB PAGE OF THE RESPECTIVE INSTITUTION.* !!!!!!!!!

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Preliminary Remarks – Formalities and Individuality

Course and Formalities

Attendance and form: *For reasonable learning success, the lectures require continuous attendance due to their interactive nature.*

Attendees do have the chance to ask questions during the lectures. The form of the lectures is not process oriented. The lectures convey, in compressed form, the fundamental knowledge for further involvement with the matters of information science.

Individual frames of content and topics: *The decision, which of the topics will be discussed and practiced and to which extent and detail is incumbent upon the lecturer and can depend on the background and qualification of the individual composition of the respective group of participants.*

Computers / network access: *Participants can bring private computers / network access, which can be used for inquest and self-assessment exercises during the lectures and during colloquial discussions. Use is on participant's own authority and responsibility.*

Caveat and cure: *The frames of the lectures are limited by several factors, due to the nature of administrative, time, and context constraints, which are out of scope of practical modification.*

Participants interested in further advanced and associated topics in the context of the lectures, please kindly consider the hints given at the end of the lectures.

Course / lecture language: *Language of the lecture series is English.*

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Sources

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Parts of the lectures of this series have been taken from:

- Claus-Peter Rückemann, **Fundamental Aspects of Information Science, Security, and Computing**, 2021, **Lecture Series**, Winter Term 2021/2022, Postgraduate Lecture Series, 2007 – 2022, EULISP, European Legal Informatics Study Programme, URL: `http://www.eulisp.eu`, Institut für Rechtsinformatik (IRI), Leibniz Universität Hannover, Germany.
  References and Credits:
  (2015) [1] **(4 ECTS)**; (2016) [2] **(4 ECTS)**;
  (2017) [3] **(4 ECTS)**; (2018) [4] **(4 ECTS)**;
  (2019) [5] **(4 ECTS)**; (2020) [6] **(4 ECTS)**;
  (2021) [7] **(4 ECTS)**.
- **The International Tutorial Series.**
  References: [8] [9] [10] [11] [12] [13]
- **The International Series of Delegates' Summits on Best Practice and Definitions. References:** [14] [15] [16] [17] [18] [19] [20]

Notes

Common Information

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Information: CV, lectures, studies, materials, research, and networking

Curriculum Vitae:
`http://scienceparagon.de/cpr/x/rueckemann/en/`
Publications, lectures, and materials:
`http://scienceparagon.de/cpr/x/rueckemann/en/#Publications`
`http://scienceparagon.de/cpr/x/frodi/en/#Courses`
Congresses and venues:
`http://scienceparagon.de/cpr/x/rwerkr/en/`

Research

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Senior Scientist and Senior Lecturer Information Science, Security, and Computing at Leibniz Univ. Hannover; IARIA Fellow.

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Media, Content, and Sources, ...

Sources and references are given via citations in respective context and in the bibliography / references of the lecture series.

Please carefully regard the respective rights of authors and other holders of rights, those named and cited as well as those referred, associated, and implicit.

Notes

Lecture i, Epitome

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Fundamental Aspects - Information Science: Computer Science Basics, Notions, Systems, Principles

This lecture "Computer Science Basics, Notions, Systems, Principles" is part of the "Fundamental Aspects - Information Science" lecture series (ISFA). Prerequisite for participation in the lecture is the membership in a postgraduate university study programme or commensurably comparable qualification. The lecture covers, in compressed form, selected fundaments and skills. Focus topics and practical skills conveyed by this lecture are concentrating on:

- ***Selected basics, notions, computing, operating systems, emulation, tools, ...***

This lecture addresses to participants from all disciplines, spanning natural sciences, humanities, applied sciences, philosophy, informatics, medicine, psychology, economics, legal, business, and management disciplines. This lecture represents a significant expenditure of time and preparation. Language of the lecture is English.

The participation for this lecture is limited to a maximum of 20 attendees.

Preconditions: Postgraduate/univ., EQF7/8, individual presentation/exam options.
Attendence in all lectures of this lecture series is a mandatory premise for successful participation.

Dates: **2023-09-08 10:15–18:00**

Notes

Lecture ii, Epitome

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Fundamental Aspects - Information Science: Procedural Tools, Processes, Frameworks

This lecture "Procedural Tools, Processes, Frameworks" is part of the "Fundamental Aspects - Information Science" lecture series (ISFA). Prerequisite for participation in the lecture is the membership in a postgraduate university study programme or commensurably comparable qualification. The lecture covers, in compressed form, selected fundaments and skills. Focus topics and practical skills conveyed by this lecture are concentrating on:

- ***Procedural tools, languages, programming paradigms, development process, strategy model, procedural framework, UML, conceptual framework, UDC, open access model in information science, . . .***

This lecture addresses to participants from all disciplines, spanning natural sciences, humanities, applied sciences, philosophy, informatics, medicine, psychology, economics, legal, business, and management disciplines. This lecture represents a significant expenditure of time and preparation. Language of the lecture is English.

The participation for this lecture is limited to a maximum of 20 attendees.

Preconditions: Postgraduate/univ., EQF7/8, individual presentation/exam options.
Attendence in all lectures of this lecture series is a mandatory premise for successful participation.

Dates: **2023-10-09 10:15–14:00**

Notes

Lecture iii, Epitome

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Fundamental Aspects - Information Science: Computing and Demands

This lecture "Computing and Demands" is part of the "Fundamental Aspects - Information Science" lecture series (ISFA). Prerequisite for participation in the lecture is the membership in a postgraduate university study programme or commensurably comparable qualification. The lecture covers, in compressed form, selected fundaments and skills. Focus topics and practical skills conveyed by this lecture are concentrating on:

- ***Computing basics, automation, demand, . . .***

This lecture addresses to participants from all disciplines, spanning natural sciences, humanities, applied sciences, philosophy, informatics, medicine, psychology, economics, legal, business, and management disciplines. This lecture represents a significant expenditure of time and preparation. Language of the lecture is English.

The participation for this lecture is limited to a maximum of 20 attendees.

Preconditions: Postgraduate/univ., EQF7/8, individual presentation/exam options.
Attendence in all lectures of this lecture series is a mandatory premise for successful participation.

Dates: **2023-10-09 14:00–18:00**

Notes

Lecture I, Epitome

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Fundamental Aspects - Information Science: Security, Notions, Risks, and Measures

This lecture "Security, Notions, Risks, and Measures" is part of the "Fundamental Aspects - Information Science" lecture series (ISFA). Prerequisite for participation in the lecture is the membership in a postgraduate university study programme or commensurably comparable qualification. The lecture covers, in compressed form, selected fundaments and skills. Focus topics and practical skills conveyed by this lecture are concentrating on:

- ***Security of information systems, notions, categories, measures, processes, risks and practices, . . .***

This lecture addresses to participants from all disciplines, spanning natural sciences, humanities, applied sciences, philosophy, informatics, medicine, psychology, economics, legal, business, and management disciplines. This lecture represents a significant expenditure of time and preparation. Language of the lecture is English.

The participation for this lecture is limited to a maximum of 20 attendees.

Preconditions: Postgraduate/univ., EQF7/8, individual presentation/exam options.
Attendence in all lectures of this lecture series is a mandatory premise for successful participation.

Dates: **2023-11-03 10:15–18:00**

Notes

Lecture II, Epitome

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Fundamental Aspects - Information Science: Information Security, Encryption, Governance

This lecture "Information Security, Encryption, Governance" is part of the "Fundamental Aspects - Information Science" lecture series (ISFA). Prerequisite for participation in the lecture is the membership in a postgraduate university study programme or commensurably comparable qualification. The lecture covers, in compressed form, selected fundaments and skills. Focus topics and practical skills conveyed by this lecture are concentrating on:

- ***Security and operating systems, measures, firewalls, encryption and steganography, information security, governance, development and compliance, SOX and Basel, protection, . . .***

This lecture addresses to participants from all disciplines, spanning natural sciences, humanities, applied sciences, philosophy, informatics, medicine, psychology, economics, legal, business, and management disciplines. This lecture represents a significant expenditure of time and preparation. Language of the lecture is English.

The participation for this lecture is limited to a maximum of 20 attendees.

Preconditions: Postgraduate/univ., EQF7/8, individual presentation/exam options.
Attendence in all lectures of this lecture series is a mandatory premise for successful participation.

Dates: **2023-11-24 10:15–14:00**

Notes

Lecture III, Epitome

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Fundamental Aspects - Information Science: Selected Measures, Formal Systems, Digitisation, Value

This lecture "Selected Measures, Formal Systems, Digitisation, Value" is part of the "Fundamental Aspects - Information Science" lecture series (ISFA). Prerequisite for participation in the lecture is the membership in a postgraduate university study programme or commensurably comparable qualification. The lecture covers, in compressed form, selected fundaments and skills. Focus topics and practical skills conveyed by this lecture are concentrating on:

- ***Security and beyond, intrusion detection, computing, data center, cabling, data, formal systems, digitisation, reasoning, intelligence, knowledge fundaments, value of knowledge, best practice, . . .***

This lecture addresses to participants from all disciplines, spanning natural sciences, humanities, applied sciences, philosophy, informatics, medicine, psychology, economics, legal, business, and management disciplines. This lecture represents a significant expenditure of time and preparation. Language of the lecture is English.

The participation for this lecture is limited to a maximum of 20 attendees.

Preconditions: Postgraduate/univ., EQF7/8, individual presentation/exam options.
Attendence in all lectures of this lecture series is a mandatory premise for successful participation.

Dates: **2023-11-24 14:00–18:00**

Notes

References (this overview only) I

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[1] C.-P. Rückemann, *Fundamental Aspects of Information Science, Security, and Computing (Univ. Lecture).* ISSC, EULISP Lecture Notes, European Legal Informatics Study Programme, Institut für Rechtsinformatik (IRI), Leibniz Universität Hannover, 2015, 780 + D Pages, URL: http://www.eulisp.de (Lecture Notes) (PDF), URL: http://scienceparagon.de/cpr/x/rfrodi/en/index.html (Abstract) (HTML).

[2] ——, *Fundamental Aspects of Information Science, Security, and Computing (Univ. Lecture).* ISSC, EULISP Lecture Notes, European Legal Informatics Study Programme, Institut für Rechtsinformatik (IRI), Leibniz Universität Hannover, 2016, 780 + D Pages, URL: http://www.eulisp.de (Lecture Notes) (PDF), URL: http://scienceparagon.de/cpr/x/rfrodi/en/index.html (Abstract) (HTML).

[3] ——, *Fundamental Aspects of Information Science, Security, and Computing (Univ. Lecture).* ISSC, EULISP Lecture Notes, European Legal Informatics Study Programme, Institut für Rechtsinformatik (IRI), Leibniz Universität Hannover, 2017, 780 + D Pages, URL: http://www.eulisp.de (Lecture Notes) (PDF), URL: http://scienceparagon.de/cpr/x/rfrodi/en/index.html (Abstract) (HTML).

[4] ——, *Fundamental Aspects of Information Science, Security, and Computing (Univ. Lecture).* ISSC, EULISP Lecture Notes, European Legal Informatics Study Programme, Institut für Rechtsinformatik (IRI), Leibniz Universität Hannover, 2018, 780 + D Pages, URL: http://www.eulisp.de (Lecture Notes) (PDF), URL: http://scienceparagon.de/cpr/x/rfrodi/en/index.html.

[5] ——, *Fundamental Aspects of Information Science, Security, and Computing (Univ. Lecture).* ISSC, EULISP Lecture Notes, European Legal Informatics Study Programme, Institut für Rechtsinformatik (IRI), Leibniz Universität Hannover, 2019, 780 + D Pages, URL: http://www.eulisp.de (Lecture Notes) (PDF), URL: http://scienceparagon.de/cpr/x/rfrodi/en/index.html.

[6] ——, *Fundamental Aspects of Information Science, Security, and Computing (Univ. Lecture).* ISSC, EULISP Lecture Notes, European Legal Informatics Study Programme, Institut für Rechtsinformatik (IRI), Leibniz Universität Hannover, 2020, 800 + D Pages, URL: http://www.eulisp.eu (Lecture Notes) (PDF), URL: http://www.scienceparagon.de/cpr/x/rfrodi/en/index.html (Abstract) (HTML), ORIG-URL: http://www.user.uni-hannover.de/cpr/x/rfrodi/en/index.html (Abstract) (HTML).

Notes

References (this overview only) II

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[7] ——, *Fundamental Aspects of Information Science, Security, and Computing (Univ. Lecture)*. ISSC, EULISP Lecture Notes, European Legal Informatics Study Programme, Institut für Rechtsinformatik (IRI), Leibniz Universität Hannover, 2021, 800 + D Pages, URL: http://www.eulisp.eu (Lecture Notes) (PDF), URL: http://www.scienceparagon.de/cpr/x/rfrodi/en/index.html (Abstract) (HTML), ORIG-URL: http://www.user.uni-hannover.de/cpr/x/rfrodi/en/index.html (Abstract) (HTML).

[8] ——, "Advanced Computing and Data-Centricity: Saving Value and Taming Complexity," *International Tutorial, November 16, 2016, The Eleventh International Multi-Conference on Computing in the Global Information Technology (ICCGI 2016), The Twelfth International Conference on Wireless and Mobile Communications (ICWMC 2016), The First International Workshop on QoS and Energy-aware Algorithms and Protocols in Wireless and Mobile Communications (QoSE WMC 2016), The Fifth International Conference on Advances in Vehicular Systems, Technologies and Applications (VEHICULAR 2016), The Eighth International Conference on Evolving Internet (INTERNET 2016), The Sixth International Conference on Advanced Collaborative Networks, Systems and Applications (COLLA 2016), The Fifth International Conference on Intelligent Systems and Applications (INTELLI 2016), The International Symposium on Intelligent Manufacturing Environments (InManEnt 2016), The First International Conference on Applications and Systems of Visual Paradigms (VISUAL 2016), The Second International Conference on Human and Social Analytics (HUSO 2016), The First International Conference on Neuroscience and Cognitive Brain Information (BRAININFO 2016) / InfoWare 2016, November 13 - 17, 2016, Barcelona, Spain, [Lecture]*, 2016, URL: http://www.iaria.org/conferences2016/filesICWMC16/Rueckemann_InfoWare2016_Tutorial_Sanitized.pdf.

[9] ——, "Where Data Lives: Centricity with Complex Data and Advanced Computing," *International Tutorial, April 24, 2016, The Eighth International Conference on Advanced Geographic Information Systems, Applications, and Services (GEOProcessing 2016), International Conference on Digital Society and eGovernments (ICDS 2016), International Conference on Advances in Computer-Human Interactions (ACHI 2016), International Conference on eHealth, Telemedicine, and Social Medicine (eTELEMED 2016), International Conference on Information, Process, and Knowledge Management (eKNOW 2016), International Conference on Mobile, Hybrid, and On-line Learning (eL&mL 2016), A Multidisciplinary View on Digital Support for Healthy Living and Self-management for Health (DIGITAL HEALTHY LIVING 2016) / DigitalWorld 2016, April 24 – 28, 2016, Venice, Italy, [Lecture]*, 2016, URL: http://www.iaria.org/conferences2016/filesGEOProcessing16/rueckemann_digitalworld2016_tutorial_sanitized_sec.pdf.

Notes

References (this overview only) III

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[10] ——, "High End Requirements and Practice: Advances in Sciences and Computing," *International Tutorial, June 21, 2015, The Fifth International Conference on Advanced Communications and Computation (INFOCOMP 2015) / DataSys 2015, International Conference on Advances in Information Mining and Management (IMMM 2015), International Conference on Mobile Services, Resources, and Users (MOBILITY 2015), Advanced International Conference on Telecommunications (AICT 2015), International Conference on Internet and Web Applications and Services (ICIW 2015), International Conference on Smart Portable, Wearable, Implantable and Disability-oriented Devices and Systems (SPWID 2015), International Conference on Internet Monitoring and Protection (ICIMP 2015), International Conference on Smart Systems, Devices and Technologies (SMART 2015), June 21–26, 2015, Brussels, Belgium [Lecture]*, 2015, URL: http://www.iaria.org/conferences2015/filesINFOCOMP15/rueckemann_infocomp2015_tutorial_sanitized_sec.pdf.

[11] ——, "Digital Speedup Meets Long-term Requirements: Sciences, Knowledge, and Computing," *International Tutorial, March 23, 2014, The Sixth International Conference on Advanced Geographic Information Systems, Applications, and Services (GEOProcessing 2014), International Conference on Digital Society (ICDS 2014), International Conference on Advances in Computer-Human Interactions (ACHI 2014), International Conference on eHealth, Telemedicine, and Social Medicine (eTELEMED 2014), International Conference on Information, Process, and Knowledge Management (eKNOW 2014), International Conference on Mobile, Hybrid, and On-line Learning (eL&mL 2014) / DigitalWorld 2014, March 23–27, 2014, Barcelona, Catalunya, Spain [Lecture]*, 2014, URL: http://www.iaria.org/conferences2014/filesICDS14/ICDS2014_Tutorial_rueckemann_digitalworld2014_tutorial_sanitized_sec.pdf.

[12] ——, "Advances in Geosciences, Natural Sciences, and Humanities: Significance of Knowledge, Processing, and Computing," *International Tutorial, February 24, 2013, The Fifth International Conference on Advanced Geographic Information Systems, Applications, and Services (GEOProcessing 2013), International Conference on Digital Society (ICDS 2013), International Conference on Advances in Computer-Human Interactions (ACHI 2013), International Conference on eHealth, Telemedicine, and Social Medicine (eTELEMED 2013), International Conference on Information, Process, and Knowledge Management (eKNOW 2013), International Conference on Mobile, Hybrid, and On-line Learning (eL&mL 2013), International Conference on Technical and Legal Aspects of the e-Society (CYBERLAWS 2013) / DigitalWorld 2013, February 24 – March 1, 2013, Nice, French Riviera, France, [Lecture]*, 2013, URL: http://www.iaria.org/conferences2013/filesGEOProcessing13/rueckemann_digitalworld2013_tutorial_sanitized_sec.pdf.

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References (this overview only) IV

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[13] ——, "Decision Making and High End Computing," *International Tutorial, October 21, 2012, The Second International Conference on Advanced Communications and Computation (INFOCOMP 2012), International Conference on Advances in Information Mining and Management (IMMM 2012), International Conference on Social Eco-Informatics (SOTICS 2012), International Conference on Mobile Services, Resources, and Users (MOBILITY 2012), International Conference on Global Health Challenges (GLOBAL HEALTH 2012), International Conference on Communications, Computation, Networks and Technologies (INNOV 2012) / DataSys 2012, October 21–26, 2012, Venice, Italy, [Lecture]*, 2012, URL: http://www.iaria.org/conferences2012/filesINFOCOMP12/rueckemann_infocomp2012_tutorial_sec.pdf.

[14] C.-P. Rückemann, F. Hülsmann, B. Gersbeck-Schierholz, P. Skurowski, and M. Staniszewski, *Knowledge and Computing*. Post-Summit Results, Delegates' Summit: Best Practice and Definitions of Knowledge and Computing, September 23, 2015, The Fifth Symposium on Advanced Computation and Information in Natural and Applied Sciences (SACINAS), The 13th International Conference of Numerical Analysis and Applied Mathematics (ICNAAM), September 23–29, 2015, Rhodes, Greece, 2015, Delegates and other contributors: Claus-Peter Rückemann, Westfälische Wilhelms-Universität Münster (WWU) / Leibniz Universität Hannover / North-German Supercomputing Alliance (HLRN), Germany; Friedrich Hülsmann, Knowledge in Motion, Unabhängiges Deutsches Institut für Multi-disziplinäre Forschung (DIMF), Germany; Birgit Gersbeck-Schierholz, Knowledge in Motion, Unabhängiges Deutsches Institut für Multi-disziplinäre Forschung (DIMF), Germany; Przemyslaw Skurowski, Institute of Informatics, Silesian University of Technology, Gliwice, Poland; Michal Staniszewski, Institute of Informatics, Silesian University of Technology, Gliwice, Poland; International EULISP post-graduate participants, ISSC, European Legal Informatics Study Programme, Leibniz Universität Hannover, Germany; DOI: 10.15488/3409, URL: http://www.icnaam.org/sites/default/files/Preliminary_Program_of_ICNAAM_2015.pdf, URL: http://www.scienceparagon.de/cpr/x/publ/2015/delegatessummit2015/rueckemann_icnaam2015_summit_summary.pdf, URL: https://www.tib.eu/en/search/id/datacite%3Adoi~10.15488%252F3409/Best-Practice-and-Defnitions-of-Knowledge-and-Computing/ (TIB.eu), URL: https://doi.org/10.15488/3409 (DOI) .

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