

## ЛИЧНА ИНФОРМАЦИЯ



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Националност българин

АКАДЕМИЧНА ДЪЛЖНОСТ/  
ОБРАЗОВАТЕЛНА И  
НАУЧНА СТЕПЕН  
ВИСШЕ ОБРАЗОВАНИЕ  
(ОБЛАСТ И  
ПРОФЕСИОНАЛНО  
НАПРАВЛЕНИЕ)  
СТАЖ (ПРОФЕСИОНАЛНО  
НАПРАВЛЕНИЕ; БРОЙ  
ГОДИНИ)/  
ПРОФЕСИОНАЛЕН ОПИТ  
И INDEX (СПРЯМО SCOPUS  
ИЛИ WEB OF SCIENCE):

Доцент, доктор

Магистър инженер, 5.3. Комуникационна и Компютърна Техника

8 години (5.3. Комуникационна и Компютърна Техника)

1

## ТРУДОВ СТАЖ

- |                 |  |
|-----------------|--|
| 12/2015–До сега | <b>Ръководител Катедра</b><br>Технически университет София, Пловдив (България) |
| 09/2013–До сега | <b>Доцент</b><br>Технически Университет София, Пловдив (България)              |
| 10/2008–08/2013 | <b>Асистент</b><br>Технически Университет София, Пловдив (България)            |

## ОБРАЗОВАНИЕ И ОБУЧЕНИЕ

- |                 |   |      |
|-----------------|---|------|
| 06/2004–05/2009 | <b>Доктор</b><br>Технически Университет София, Пловдив (България)<br>Компютърни системи, комплекси и мрежи      | ЕКР8 |
| 10/2003–06/2008 | <b>Магистър-инженер</b><br>Технически Университет София, Пловдив (България)<br>Компютърни системи и технологии  | ЕКР7 |
| 09/1999–09/2003 | <b>Бакалавър-инженер</b><br>Технически Университет София, Пловдив (България)<br>Компютърни системи и технологии | ЕКР6 |
| 09/1994–06/1999 | ОМГ "Акад. Кирил Попов", Пловдив (България)<br>Засилено изучаване на: Физика, Английски, Математика             |      |

## ДОПЪЛНИТЕЛНИ КВАЛИФИКАЦИИ

09/09/2013–14/09/2013 Basics of "Dual System" in Education; Self-organized an cooperative forms of learning; Quality management of lessons and in-service training  
State Academy for In-Service Training and Human Resources Development at Schools, Esslingen (Германия)

Съответстващ/и документ/и: Приложение 1: certificate\_esslingen.pdf

06/12/2010–10/12/2010 TRAINING EVENT IN SOFTWARE SERVICES  
West University, Timisoara (Румъния)

30/01/2010–30/01/2010 Introduction to Grid Computing, EGEE and Bulgarian Grid Initiatives  
Technical University of Sofia, Plovdiv (България)

Съответстващ/и документ/и: Приложение 2: Grid\_certificate.pdf

## ЛИЧНИ УМЕНИЯ

Майчин език български

Други езици

	РАЗБИРАНЕ		ГОВОРЕНЕ		ПИСАНЕ
	Слушане	Четене	Участие в разговор	Самостоятелно устно изложение	
руски	B1	B2	A2	B1	B1
английски	C1	C1	C1	C1	C1

Ниво: А 1, 2 Основно ниво на владееене; В 1, 2 Самостоятелно ниво на владееене; С 1, 2 Свободно ниво на владееене

Комуникационни умения Водене на лекции, семинари, презентации.  
Провеждане на лабораторни упражнения и практическа работа.

Организационни / управленски умения Ръководство на дипломни проекти.  
Ръководство на докторанти.  
Управление на катедра (22-ма души).

## ДОПЪЛНИТЕЛНА ИНФОРМАЦИЯ

Внедрявания Приложение 3: application\_MU.pdf

Проекти Приложение 4: Списък с проекти

Публикации Приложение 5: Списък на публикации и цитирания в Scopus за периода 2011-2015  
Приложение 6: Списък с други цитирания 2011-2015  
Приложение 7: Списък на други публикации 2011-2015



State Academy for In-Service Training  
and Human Resources Development  
at Schools, Esslingen



## Certificate

**Mr Nikolay Kakanakov**

has participated in the seminar

**Capacity-Building for teachers of VET in the Danube Region - In-service training / Bulgaria: Action oriented teaching methods in in-service training**

from 09 to 14 September 2013.

During the one-week seminar (36 hours) the participants have dealt with the following topics:

- Introduction of the Vocational Education System in Baden-Württemberg
- Basic information on the "Dual System"  
Fields of learning: From curriculum to the individual lesson
- Classroom management, self-organized and cooperative forms of learning
- Conceptual workshop for in-service training units  
Focus on:  
Electronics  
Automotive engineering  
Metal technology
- Quality Management of lessons and in-service training  
Sustainability of the in-service trainings in VET

Esslingen, 13 September 2013

Elisabeth Moser  
Director and Member of Board



State Academy for In-Service Training  
and Human Resources Development  
at Schools, Esslingen



## Сертификат

Господин

**Николай Каканаков**

взе участие в проведения семинар – обучение на тема

**Изграждане на компетенции на учители по професионално обучение в Дунавския регион – повишаване на квалификацията на преподавателите в България:**  
проект за обучение на обучители по професионално обучение  
**Методи на работа, съобразени с дейностите**

в периода 09 - 14 септември 2013

По време на едноседмичния семинар в рамките на 36 часа участниците се запознаха със следните теми и обучителни процеси:

- Системата за професионално обучение в област „Баден – Вюртенберг“
- Основи на дуалната система в Германия
- Концепцията за обучение в зависимост от тематичните области и професии „от учебния план към обучението“ и нейното приложение в професионалните направления:
  - Електротехника
  - Автомобилостроене
  - Металообработка
- Организация на учебния процес при самостоятелно и кооперирано обучение
- Конкретизация: Разработване на учебни единици, съобразени с дейностите
- Качество на преподаването и развитие на училищата
- Качество и устойчивост при повишаване на квалификацията на учителите
- Квалификация на учителите

Esslingen, 13 September 2013

Elisabeth Moser  
Director and Member of Board



## CERTIFICATE


We certify herewith that **Mr Nikolay Kakanakov** attended and completed the *Course on Introduction to Grid Computing, EGEE and Bulgarian Grid Initiatives*, given at the Technical University – Sofia, Branch Plovdiv, Plovdiv, on 30 January 2010.

This course consisted of lectures and practicals on the following subjects:

- An Introduction to Grid Computing and the EGEE Project,
- Bulgarian Grid Initiatives,
- Using EGEE Middleware:
  - Authentication, Authorisation and Security,
  - Using the Grid certificate and job submission,
  - Data management in gLite middleware,
  - Information systems in glite middleware,


The course was organized in the framework of the EU Project *Enabling Grids for E-science-III (EGEE-III)*.

Sofia, 30<sup>th</sup> January 2010



Emanouil Atanassov

Team Leader of EGEE-III for Bulgaria



Kiril Boyanov

Coordinator of EGEE-III for Bulgaria

ПРИЛОЖЕНИЕ 3:

№ 22 11.12.2015



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## УДОСТОВЕРЕНИЕ

Настоящото удостоверение се издава на проф. д-р инж. Гриша Валентинов Спасов, доц. д-р инж. Галидия Иванова Петрова, доц. д-р инж. Николай Руменов Каканаков, гл. ас. д-р инж. Добринка Любомирова Петрова, гл. ас. д-р инж. Митко Петров Шопов и маг. инж. Ирина Савова Николова в уверение на това, че разработената и изградена от тях **Клинична информационна система (КИС)** за проследяване на деца с хирургични заболявания по дог. № ДДВУ02/29 с ФНИ е внедрена и се използва в Клиниката по Детска хирургия към УМБАЛ „Св. Георги“ и за провеждане на научни изследвания в МУ - Пловдив.

Пловдив

Началник на Клиника по детска хирургия  
УМБАЛ „Св. Георги“

Ръководител на секция по детска хирургия  
МУ - Пловдив:

(проф. д-р Пенка Стефанова-Пеева д.м.)



**Национални научно-изследователски договори и проекти:**

- Проект ФНИ Е 02/31 към Фонд „Научни изследвания“, „Изследване на методи и средства за приложение на облачни технологии за измерване и управление в електроенергийната система“, 168 000 лв., 2014-2016, доц. д-р Петър Якимов – ФЕТТ, ТУ-София.
- Проект ДВУ-10-0100/2010 към Фонд „Научни изследвания“, „Модерни методи за създаване на клинична информационна система за наблюдение на деца с хирургически заболявания (PedSurgCIS)“, 120 000 лв., 2010-2013, проф. д-р Пенка Стефанова-Пеева – Клиника по детска хирургия, МУ-Пловдив
- Проект ВУ-МИ-108/2005 към Фонд „Научни изследвания“, „Интегриране на уеб услуги и данни в разпределени автоматизационни и информационни системи в интернет среда“, 65000лв, 2005-2008, проф. д-р Тодор Стоилов, ИККС-БАН
- Проект МУ-МИ-102/2005 към Фонд „Научни изследвания“, „Анализ на атаките и методи за защита на уеб услуги в глобални мрежи“, 9000лв, 2006-2008, Елена Иванова, ИККС-БАН

**Вътрешно-университетски научно-изследователски договори**

- Методи и средства за изграждане на Web-базирани системи за наблюдение и управление в електроенергетиката - договор No 102НИ200-3/2010 – период 2010/2011 – доц. д-р Петър Якимов
- Реализиране на експериментална среда за изследване на протоколи и процеси в многослойни web-базирани системи за персонализирано здравеопазване - договор No 102пд078-19 – период 2010/2011 – доц. д-р Галидия Петрова
- Web базирана експериментална мрежа за изследване на информационното взаимодействие и трафика в системи за персонализирано здравеопазване (WebPHS) – 091ни066- 17/2009 – период 2009/2010 – проф. д-р Гриша Спасов
- Разработване на експериментален пациентен монитор за събиране на данни от мрежа от сензори за измерване на физиологични параметри - договор No 091ни060-17/2009 – период 2009/2010 – доц. д-р Галидия Петрова



**SCOPUS Author ID: 34879860700 ( Kakanakov, N.R.; Kakanakov, N.; Kakanakov, Nikolay)**

**Публикации:**

1. Kakanakov, N.R., "Evaluating the delays in local controller networks", (2013) International Review on Computers and Software, 8 (1), pp. 307-312.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-84875672572&partnerID=40&md5=47b31d97155abe3e02d202b57ef600f2>
2. Sarkar, S., Kakanakov, N., Prasad, S.S., "Investigation on the influence of packet sizes on WRR queue management in Ethernet switch", (2013) Communications in Computer and Information Science, 296 CCIS, pp. 50-55.  
[https://www.scopus.com/inward/record.uri?eid=2-s2.0-84873807261&doi=10.1007%2f978-3-642-35864-7\\_7&partnerID=40&md5=4cafd9c52c9849580cfffdd6aa55859](https://www.scopus.com/inward/record.uri?eid=2-s2.0-84873807261&doi=10.1007%2f978-3-642-35864-7_7&partnerID=40&md5=4cafd9c52c9849580cfffdd6aa55859)
3. Kakanakov, N.R., "Evaluating a medical grade network through network calculus", (2012) MIPRO 2012 - 35th International Convention on Information and Communication Technology, Electronics and Microelectronics - Proceedings, art. no. 6240738, pp. 715-720.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-84865079491&partnerID=40&md5=d0cd03c88856dbeb4bb3d3aefa3f646e>

**Цитирания:**

1. Kakanakov, N.R., "Evaluating the delays in local controller networks", (2013) International Review on Computers and Software, 8 (1), pp. 307-312.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-84875672572&partnerID=40&md5=47b31d97155abe3e02d202b57ef600f2>
  - 1.1. Cited 1 time in: Mukhin, V., Loutskii, H., Barabash, O., Kornaga, Y., Steshyn, V., "Models for analysis and prognostication of the indicators of the distributed computer systems' characteristics", (2015) International Review on Computers and Software, 10 (12), pp. 1216-1224.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-84959470282&partnerID=40&md5=1a339e8c3953114969e724656f612e14>

**Цитирания за периода (2011-2015), видими в SCOPUS, на публикации извън SCOPUS или извън периода:**

1. "B. V. S. Sai Chaitanya, ""An Effective Framework for Integrating Web Services with Embedded Systems"" , Indian Journal of Science and Technology, Vol 8(33), DOI: 10.17485/ijst/2015/v8i33/74934, December 2015 ISSN (Print) : 0974-6846, ISSN (Online) : 0974-5645"  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-84956708462&doi=10.17485%2fijst%2f2015%2fv8i33%2f74934&partnerID=40&md5=e7ec13d97d6cb87717c3623767423e97>  
→ [4] Kakanakov N, Spasov G. Adaptation of WEB services architecture in distributed embedded systems. International Conference on Computer Systems and Technologies; 2005.
2. Rodrigues, Douglas; Chaves, Arthur A.; Branco, Kalinka R.L.J.C.; Ramdhany, Rajiv; Coulson, Geoff, "Knowledge Based Framework: A Case Study on Fast, Reliable, and Secure Web Services in UAVs," Information Technology: New Generations (ITNG), 2014 11th International Conference on , vol., no., pp.103,108, 7-9 April 2014  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-84903467832&doi=10.1109%2fITNG.2014.84&partnerID=40&md5=74101d9d0df5d335cf6d7f7400235d58>  
→ [16] N. R. Kakanakov and G. Spasov, "Adaptation of web service architecture in distributed embedded systems,"



in CompSysTech '05: Proceedings of the International Conference on Computer Systems and Technologies, 2005, pp. 1-6.

3. "Suarez Baron, J.C.; Suarez Baron, M.J., ""Application of SHT71 sensor to measure humidity and temperature with a WSN,"" in Sensors (IBERSENSOR), 2014 IEEE 9th Ibero-American Congress on , vol., no., pp.1-7, 15-18 Oct. 2014 doi: 10.1109/IBERSENSOR.2014.6995554"

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-84921684502&doi=10.1109%2fIBERSENSOR.2014.6995554&partnerID=40&md5=fd7adb61f8b921916b6332b92271ba6e>

→ [1] G. Spasov and N. Kakanakov, "Measurement of Temperature and Humidity using SHT 11/71 intelligent Sensor," Electron. Sept., 2004

4. Salahuddin, Ns, Rh Handoko, S. Poernomo Sari, M. Hermita, And Ab Mutiara. "Premature Infant Incubator Alert System Via Sms", Journal of Theoretical & Applied Information Technology 66, no. 3 (2014).

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-84906849534&partnerID=40&md5=46e747cfecee3b7d9df1573370bc6dde>

→ [7] Spasov, Grisha., & Kakanakov, Nikolay, "Measurement of Temperature And Humidity Using SHT11/71 Intelligent Sensor", Bulgaria:Technical University,2004.

5. Kalman, Gyorgy, and Dalimir Orfanus. "Measuring latencies over industrial Ethernet switches." Telecommunications Forum (TELFOR), 2013 21st. IEEE, 2013.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-84894311568&doi=10.1109%2fTELFOR.2013.6716245&partnerID=40&md5=866939883380a09c2f72728e73093ff6>

→ [6] Nikolay Kakanakov et.al., "Performance Evaluation of Switched Ethernet as Communication Media in Controller Networks", in Proc. International Conference on Computer Systems and Technologies, Rousse, Bulgaria, 2007.

6. Langmann, Reinhard; Meyer, Laurid, "Architecture of a web-oriented automation system," Emerging Technologies & Factory Automation (ETF A), 2013 IEEE 18th Conference on , vol., no., pp.1,8, 10-13 Sept. 2013

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-84890637916&doi=10.1109%2fETF A.2013.6648011&partnerID=40&md5=48aeb853b36f8a44ed255b308d23d564>

→ [3] Kakanakov, N., Shopov, M., Spasov, G.: Distributed Automation System based on Java and Web Services. - CompSysTech'06, 15-16 June 2006, Tarnovo, Bulgaria.

7. Missaoui, A. 2013, "An optimal architecture for dynamic web service discovery and selection", International Review on Computers and Software, vol. 8, no. 4, pp. 909-914.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-84879935839&partnerID=40&md5=79487fe860daeafd1af29a800d8e4b04>

→ [7] N.Kakanakov, M.Shopov, I.Stankov,et al.Web Services and Data Integration in Distributed Automation and Information Systems in Internet Environment. International Review on Computers and Software (IRECOS), Vol.1,n.3, pp.194-201,2006.

8. Khaled, A. & Janati-Idrissi, M.A. 2013, "SEVALERPS a new EX-ANTE multi-criteria method for ERP selection", International Review on Computers and Software, vol. 8, no. 10, pp. 2477-2485.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-84891532111&partnerID=40&md5=7c529f2d8b2248d12908e7ac15da5fe7>

- [2] N.Kakanakov, M.Shopov, I.Stankov, et al. Web Services and Data Integration in Distributed Automation and Information Systems in Internet Environment. International Review on Computers and Software (IRECOS), Vol.1,n.3, pp.194-201,2006.
9. Amshakala, K. & Nedunchezian, R. 2013, "Extracting data quality rules using information theoretic measures", International Review on Computers and Software, vol. 8, no. 6, pp. 1321-1327.
- <https://www.scopus.com/inward/record.uri?eid=2-s2.0-84881482737&partnerID=40&md5=7e64a8d2aa42a1e879c4a12d640197c5>
- [24] N.Kakanakov, M.Shopov, I.Stankov, et al. Web Services and Data Integration in Distributed Automation and Information Systems in Internet Environment. International Review on Computers and Software (IRECOS), Vol.1,n.3, pp.194-201,2006.
10. M. Priyadharshini, R. Baskaran, N. Balaji, M. S. Saleem Basha, "Analysis on Countering XML-Based Attacks in Web Services," Vol. 8. n. 9, pp. 2197-2204
- <https://www.scopus.com/inward/record.uri?eid=2-s2.0-84888092485&partnerID=40&md5=b6a17f26fe7e09d8f59e98e37f719ac9>
- [16] N.Kakanakov, M.Shopov, I.Stankov, et al. Web Services and Data Integration in Distributed Automation and Information Systems in Internet Environment. International Review on Computers and Software (IRECOS), Vol.1,n.3, pp.194-201,2006.
11. Yangxin Yu, Yinzhou Zhang, "Research of Semantic Information Retrieval Based on Conceptual Analysis of User Queues," International Review on Computers and Software, vol. 8, no. 1, pp. 152-15, 2013.
- <https://www.scopus.com/inward/record.uri?eid=2-s2.0-84875640079&partnerID=40&md5=a4b7c9e20535bbe65766fd799f7f7a92>
- [3] N.Kakanakov, M.Shopov, I.Stankov, et al. Web Services and Data Integration in Distributed Automation and Information Systems in Internet Environment. International Review on Computers and Software (IRECOS), Vol.1,n.3, pp.194-201,2006.
12. Andreas Schönberger, Johannes Schwalb, and Guido Wirtz. 2012. Interoperability and Functionality of WS-\* Implementations. Int. J. Web Serv. Res. 9, 3 (July 2012), 1-22. DOI=10.4018/jwsr.2012070101 <http://dx.doi.org/10.4018/jwsr.2012070101>
- <https://www.scopus.com/inward/record.uri?eid=2-s2.0-84877877982&doi=10.4018%2fjwsr.2012070101&partnerID=40&md5=aeb304382c376c18ab299a9ca515f02f>
- [Shopov and Kakanakov 2007] Shopov, M., & Kakanakov, N. 2007, October. Evaluation of a single WS-Security implementation. In Proceedings of the International Conference on Automatics and Informatics, Sofia, Bulgaria pp. 39-42.
13. Sasko, S. and A. Tentov, "Performance Impact Correlation of Message Size vs. Concurrent Users Implementing Web Service Security on Linux Platform," Advances in Intelligent and Soft Computing, ICT Innovations 2011, Springer Berlin / Heidelberg, vol. 150, pp. 367-377, 2012, ISBN: 978-3-642-28663-6.
- [https://www.scopus.com/inward/record.uri?eid=2-s2.0-84864309484&doi=10.1007%2f978-3-642-28664-3\\_34&partnerID=40&md5=76a75edd2d50b7250b8fa5d9db00d786](https://www.scopus.com/inward/record.uri?eid=2-s2.0-84864309484&doi=10.1007%2f978-3-642-28664-3_34&partnerID=40&md5=76a75edd2d50b7250b8fa5d9db00d786)
- [5] Shopov, M., Kakanakov, N.: Evaluation of a single WS-Security implementation. In: Proceedings of the International Conference for Automatics and Informatics 2007, Sofia, Bulgaria.
14. Langmann, Reinhard; Makarov, Oleg; Meyer, Laurid; Nesterenko, Sergey; , "The WOAS project: Web-oriented Automation System," Remote Engineering and Virtual Instrumentation (REV), 2012 9th International Conference on , vol., no., pp.1-3, 4-6 July 2012.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-84867317016&doi=10.1109%2fREV.2012.6293096&partnerID=40&md5=4b7064a2997cf3ee846fd14470cad11f>

→ [3] Kakanakov, N., Shopov, M., Spasov, G.: Distributed Automation System based on Java and Web Services. - CompSysTech'06, 15-16 June 2006, Tarnovo, Bulgaria.

15. Lin, J. "An analysis method for development of Cloud-based customer knowledge management information systems," International review on Computers and Software, vol.5, no. 6, pp. 3285-3290, 2012.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-84873297198&partnerID=40&md5=9d63a10be483c9b30db38eac00d64d84>

→ [18] N.Kakanakov, M.Shopov, I.Stankov, et al. Web Services and Data Integration in Distributed Automation and Information Systems in Internet Environment. International Review on Computers and Software (IRECOS), Vol.1,n.3, pp.194-201,2006.

16. Luoyi, C., Jia, C., Bin, X., "The implement of AJAX in Struts2 framework," International Review on Computers and Software, vol. 7, no. 6, pp. 3206-3210, 2012.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-84873299291&partnerID=40&md5=caa67b043bba99e33718ae57380a532d>

→ [9] N.Kakanakov, M.Shopov, I.Stankov, et al. Web Services and Data Integration in Distributed Automation and Information Systems in Internet Environment. International Review on Computers and Software (IRECOS), Vol.1,n.3, pp.194-201,2006.

17. Bo Chen and Wenjia Liu, "A Web-Based Structural Health Monitoring Sensor Network," International Journal of Computer Applications in Technology, vol. 44, no. 3, pp.188-197, 2012.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-84859613954&doi=10.1504%2fJCAT.2012.049082&partnerID=40&md5=9232746eb42400269457fca2cafa56a9>

→ [11] Kakanakov, N., Spasov, G., "Adaptation of web service architecture in distributed embedded systems", (2005) Proceedings of the International Conference on Computer Systems and Technologies and Workshop for PhD Students in Computing. Cited 6 times. Varna, Bulgaria.

18. Schönberger, A, Schwalb, J, Wirtz, G., "Has WS-I's Work Resulted in Ws-\* Interoperability," Web Services (ICWS), 2011 IEEE International Conference on, vol., no., pp.171-178, 4-9 July 2011.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-80053163617&doi=10.1109%2fICWS.2011.42&partnerID=40&md5=25ca0865f9072ba6d6b074dbed09508d>

→ [23] M. Shopov and N. Kakanakov, "Evaluation of a single WS-Security implementation," in Proceedings International Conference on Automatics and Informatics, Sofia, Bulgaria, October 2007, pp. 39–42.

19. Bayindir, R., Cetinceviz, Y., Uygun, D., "Design and simulation of an internet-based interactive controlling and monitoring system for educational purposes using SCADA," International Review on Computers and Software, vol 6, no. 5, pp. 631-639, 2011.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-84856478650&partnerID=40&md5=5900e01429307425d41beeecd7c64efd>

→ [12] N.Kakanakov, M.Shopov, I.Stankov, et al. Web Services and Data Integration in Distributed Automation and Information Systems in Internet Environment. International Review on Computers and Software (IRECOS), Vol.1,n.3, pp.194-201,2006.

20. Tashayo, B., Mansourian A., Mesgari, M.S., "Design and development of an integrated approach for on-demand production of road network map," International Review on Computers and Software, vol 6, no. 3, pp.355-365, 2011.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-81255172437&partnerID=40&md5=b6e0a8d0665592d64186849ddf381904>

→ [6] N.Kakanakov, M.Shopov, I.Stankov,et al.Web Services and Data Integration in Distributed Automation and Information Systems in Internet Environment. International Review on Computers and Software (IRECOS), Vol.1,n.3, pp.194-201,2006.

21. Suresh, K.D.; Kirubashankar, R.; Krishnamurthy, K.; , "Research of Internet based supervisory control and information system," Recent Trends in Information Technology (ICRTIT), 2011 International Conference on , vol., no., pp.1180-1185, 3-5 June 2011.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-80052200676&doi=10.1109%2fICRTIT.2011.5972482&partnerID=40&md5=467444ee636982e9fee39fd25511cb5b>

→ [8] N.Kakanakov et al.,"A New Web-Based Multi-Tier Model for Distributed Automation Systems", (Information Technology and Control), 2006, Volume2, pp 17-22.

22. Zhengjun Zeng; Mining Hu; Dinggou Li; Yibao Liu; , "Distributed Virtual Laboratory System Based on Java/Corba," Circuits, Communications and System (PACCS), 2011 Third Pacific-Asia Conference on , vol., no., pp.1-4, 17-18 July 2011

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-80052865261&doi=10.1109%2fPACCS.2011.5990230&partnerID=40&md5=da25d31d9fa5e4dfa860c515a373b7d1>

→ [1] Kakanakov, N.. Web based models for distributed automation. Journal of Automatics and Informatics, 2006 (in press). (in Bulgarian).

23. D. Rodrigues, R. M. Pires, J. C. Estrella, M. Vieira, M. Corrêa, J. B. Camargo Júnior, K. R. Branco, O. T. Júnior, "Application of SOA in Safety-Critical embedded systems convergence and hybrid information technology," Book Chapter 45, CONVERGENCE AND HYBRID INFORMATION TECHNOLOGY, pages 345–354, Book series: Communications in Computer and Information Science, volume 206, part 5, Springer Berlin Heidelberg, 2011.

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-80053455620&doi=10.1007%2f978-3-642-24106-2\\_45&partnerID=40&md5=6110a68519655fd6e9c804d33ca213b5](https://www.scopus.com/inward/record.uri?eid=2-s2.0-80053455620&doi=10.1007%2f978-3-642-24106-2_45&partnerID=40&md5=6110a68519655fd6e9c804d33ca213b5)

→ [5] N. R. Kakanakov, Experimental Analysis of Client/Server Application in Embedded Systems, In Electronics, Sozopol, Bulgary, 2005.

24. Rodrigues, D., De Melo Pires, R., Estrella, J.C., Marconato, E.A., De Trinde Jr., O., Castelo Branco, K.R.L.J., „Using SOA in critical-embedded systems“ ,(2011) Proceedings - 2011 IEEE International Conferences on Internet of Things and Cyber, Physical and Social Computing, iThings/CPSCoM 2011, art. no. 6142164, pp. 733-738.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-84857521618&doi=10.1109%2fiThings%2fCPSCoM.2011.127&partnerID=40&md5=b9686670bcdb97f0bc7b045eb9698c48>

→ [6] N. R. Kakanakov, and G. Spasov, Adaptation of Web Service Architecture in Distributed Embedded Systems, In International Conference on Computer Systems and Technologies - CompSysTech 2005, pp. IIIB.10-1 - IIIB.10-6, 2005.

1. R. Pavithra, S. Baby Sathya, "Switched Ethernet with Multiple Client-Server Architecture in Real Time Networked Control System Applications," International Journal of Science and Research (IJSR), Volume 4 Issue 2, February 2015, pp. 1775- 1778, ISSN (Online): 2319-7064 Index Copernicus Value (2013): 6.14 Impact Factor (2013): 4.438  
  
→ [4] Performance Evaluation of Switched Ethernet as Communication Media in Controller Networks NIKOLAY KAKANAKOV, MITKO SHOPOV, GRISHA SPASOV, HRISTO HRISTEV in Proc. IEEE Intell. Solutions Embed. Syst., vol. 1, pp. 1318.
2. Sasi Bhanu, S.J., Vinaya Babu, A. & Trimurthy, P. 2015, "Web services oriented architecture for dynamic evolution of communication with embedded systems", ARPN Journal of Engineering and Applied Sciences, vol. 10, no. 22, pp. 10372-10386.  
  
→ [13] Nikolay Kakanakov, Grisha Spasov. (2005), "Adaptation Of WEB Services Architecture In Distributed Embedded Systems. International", Conference on Computer Systems and Technologies.
3. Douglas Rodrigues, Rodrigo R Zaniolo and Kalinka R L J C Branco, "Knowledge-Based Framework: its specification and new related discussions", 4th International Conference on Mathematical Modeling in Physical Sciences (IC-MSquare2015) IOP Publishing Journal of Physics: Conference Series 633 (2015), 012052, doi:10.1088/1742-6596/633/1/012052  
  
→ [3] Kakanakov N R and Spasov G 2005 CompSysTech '05: Proceedings of the International Conference on Computer Systems and Technologies 1-6
4. SUN Lu, LAN Ju-long, "A Nested Queue Scheduling Algorithm Based on Differentiated Service, " Computer Engineering, Vol.40, No.6, June 2014, DOI: 10.3969/j.issn.1000-3428.2014.06.011  
  
→ [8] Sarkar S, Kakanakov N, Prasad S. Investigation on the Influence of Packet Sizes on WRR Queue Management in Ethernet Switch[M]. Berlin, Germany: Springer, 2013.
5. Kalman, G., D. Orfanus, R. Hussain. "An Overview of Switching Solutions for Wired Industrial Ethernet," ICN 2014 : The Thirteenth International Conference on Networks, ISBN: 978-1-61208-318-6, pp. 131-135  
  
→ [2] N. Kakanakov, M. Shopov, G. Spasov and H. Hristev, Performance Evaluation of Switched Ethernet as Communication Media in Controller Networks, International Conference on Computer Systems and Technologies - CompSysTech 2007, Article No. 30.
6. Marconato, Emerson, Douglas Rodrigues, Arthur Chaves, Rajiv Ramdhany, Kalinka Branco, and Geoff Coulson. "Unmanned Aerial Vehicles & Service-Oriented Architecture: LARISSA and Knowledge Based Framework's First Study." In ICAS 2014, The Tenth International Conference on Autonomic and Autonomous Systems, pp. 5-10. 2014.  
  
→ [19] N. R. Kakanakov, "Experimental analysis of client/server applications in embedded systems," in Proceedings of the Annual Scientific and Applied Science Conference Electronics, vol. 4, 2005, pp. 97–102.
7. Rodrigues, Douglas; Chaves, Arthur A.; Branco, Kalinka R.L.J.C.; Ramdhany, Rajiv; Coulson, Geoff, "Knowledge Based Framework: A Case Study on Fast, Reliable, and Secure Web Services in UAVs," Information Technology: New Generations (ITNG), 2014 11th International Conference on , vol., no., pp.103,108, 7-9 April 2014  
  
→ [14] N. R. Kakanakov, "Experimental analysis of client/server applications in embedded systems," in Proceedings of the Annual Scientific and Applied Science Conference Electronics, vol. 4, 2005, pp. 97-102.
8. Marconato, Emerson, Douglas Rodrigues, Arthur Chaves, Rajiv Ramdhany, Kalinka Branco, and Geoff Coulson. "Unmanned Aerial Vehicles & Service-Oriented Architecture: LARISSA and Knowledge Based Framework's First Study." In ICAS 2014, The Tenth International Conference on Autonomic and Autonomous Systems, pp. 5-10. 2014.



- [20] N. R. Kakanakov and G. Spasov, "Adaptation of web service architecture in distributed embedded systems," in *CompSysTech '05: Proceedings of the International Conference on Computer Systems and Technologies*, 2005, pp. 1–6.
9. C.C. Udeze, K.C. Okafor, C.C. Okezie, O.N. Okeke, "Performance Evaluation of Openflow VLAN Strategy in Data Center Switched Ethernet," *African Journal of Computing & ICT*, Vol 6. No. 3, pp.63-72, ISSN 2006-1781, September 2013
- [8] Nikolay Kakanakov, Mitko Shopov, Grisha Spasov, Hristo Hristev, "Performance Evaluation of Switched Ethernet as Communication Media in Controller Networks" *International Conference on Computer Systems and Technologies - CompSysTech'07*
10. Glienecke, Michael, David Lewis, and Declan O'Sullivan. "A Value Added Device Gateway Architecture for Sensors and Actuators," *International Journal of Sensor and Related Networks (IJSRN)*, Volume 1, Issue1 , February 2013
- [23] Kakanakov, N., Stankov, I., Shopov, M., Spasov, G., 2006. Controller Network Data Extracting Protocol—design and Implementation, in: *Proc. CompSysTech*.
11. Nikam, Samiksha, and B. T. Jadhav. "Importance of Specifications in Designing of Protocols," *IJRCSIT I* ISSN No. : 2319-5010, Vol. 1, Issue 1(A), Feb. 2013.
- [17] Nikolay Kakanakov, Ivan Stankov, Mitko Shopov, Grisha Spasov, "Controller Network Data Extracting Protocol – Design and Implementation", *International Conference on Computer Systems and Technologies - CompSysTech'06*
12. Zota, R. D., Moleavin, R. S., & R. Constantinescu; "SOA CONSIDERATIONS FOR AN ELECTRIC POWER INDUSTRY ENTERPRISE," *REVISTA ECONOMICĂ*, Vol. 5/2012, pp. 195-201.
- [Kakanakov, 2005] Kakanakov, N.; Shopov, M.; Spasov, G. (2005) A New Web-based Multi-tier Model for Distributed Automation Systems, *Information Technologies and Control*, Vol. 4, no. 2, pp.44-48, 2006, ISSN: 1312-2622, Plovdiv, Bulgaria.
13. Pigatto, Daniel Fernando. "Segurança em sistemas embarcados críticos-utilização de criptografia para comunicação segura." PhD diss., Universidade de São Paulo, 2012.
- (Kakanakov, 2005) KAKANAKOV, N. R. Experimental Analysis of Client/Server Applications in Embedded Systems. In: *ELECTRONICS'2005*, 2005, p. 97–102.
14. Liu, Wenjia. "Data Driven Intelligent Agent Networks For Adaptive Monitoring And Control." PhD thesis Michigan Technological University (2012).
- [133] N. Kakanakov and G. Spasov, "Adaptation of web service architecture in distributed embedded systems," in *Proceedings of the International Conference on Computer Systems and Technologies*, 2005.
15. Pigatto, Daniel Fernando. "Segurança em sistemas embarcados críticos-utilização de criptografia para comunicação segura." PhD diss., Universidade de São Paulo, 2012.
- (Kakanakov e Spasov, 2005) KAKANAKOV, N. R.; S PASOV, G. Adaptation of web service architecture in distributed embedded systems. In: *International Conference on Computer Systems and Technologies - CompSysTech*, 2005, p. 10–16.
16. Bo Chen and Wenjia Liu, "A Web-Based Structural Health Monitoring Sensor Network," *International Journal of Computer Applications in Technology*, vol. 44, no. 3, pp.188-197, 2012.
- [20] Spasov, G., Kakanakov, N., "CGI-based applications for distributed embedded systems for monitoring temperature and humidity", (2004) *Proceedings of the International Conference on Computer Systems and Technologies (e-Learning)*. Rousse, Bulgaria.

17. Mohamad Haffar, "Approche de Co-Simulation en vue de la validation et de l'évaluation de performance des systèmes de communication: Application à des architectures de distribution électriques," THÈSE Pour obtenir le grade de DOCTEUR DE L'UNIVERSITÉ DE GRENOBLE, Spécialité : Automatique et productique, 21 Septembre 2011.

→ [Kakanakov et al, 2007] Kakanakov N., Shopov M., Spasov G., Hristev H., Performance Evaluation of Switched Ethernet as communication Media in Controller Networks [2007], in 'International Conference on Computer Systems and Technologies', session IIIA, paper no. 8.

18. S. Baruah, "Communicating Embedded Systems by Implementing Different Networking Options For Real Life Applications," In Proc. International Conference on Future Information Technology IPCSIT, vol.13, IACSIT Press, Singapore, 2011.

→ [8] Grisha Spasov, Nikolay Kakankov, "CGI based applications for distributed systems for monitoring Temperature and Humidity" Proceedings of 5th International conference on Computer Systems and Technologies-CompsysTech'2004, Rousse, Bulgaria, pp 1-6, ISBN 954- 9641-38-4.

19. S. Baruah, "Designing and implementing a computer interactive network embedded system for monitoring and controlling of humidity and temperature for using in a green house," In Proc. of the International Conference & Workshop on Emerging Trends in Technology, Mumbai, Maharashtra, India, February 25-26, 2011.

→ [11] Grisha Spasov , Nikolay Kakanakov, CGI-based applications for distributed embedded systems for monitoring temperature and humidity, Proceedings of the 5th international conference on Computer systems and technologies, June 17-18, 2004, Rousse, Bulgaria



#### ПРИЛОЖЕНИЕ 6: Списък на други публикации 2011-2015

1. Spasov, G., G. Petrova, N. Kakanakov, "Application of Cloud Technologies in SCADA Systems For Observation And Control of Information Processes in Electrical Power System", Journal "Automatica and Informatics", Vol. 4, 2015 (на български език).
2. Kakanakov, N., S. Stoyanov, "Applying Cloud Technologies and Sensor Networks in Monitoring and Control of Energy Management System", Journal "Automatica and Informatics", pp. 11-14, Vol. 1, 2015 (на български език).
3. Shopov, M., N. Kakanakov, G. Spasov, G. Petrova, "The Teacher-Student Interaction Employing E-Learning Platform In The Education On Microprocessor Systems," Twelfth International Conference Challenges In Higher Education And Research In XXI Century, 3-6 June, Sozopol, Bulgaria, 2014.
4. Kakanakov, N., "Analytical estimation of the delays in local networks," Proceedings of the Technical University - Sofia, Vol.63, book 3, pp.145-154 , ISSN 1311-0829, 2013. (на български език).
5. Kakanakov, N., "Implementation and analysis of a medical grade computer network," Scientific research of the Union of Scientist in Bulgaria-Plovdiv, series C: Technics and Technologies, Vol X, ISSN 1311-9419, October 2012 (на български език).
6. N. Kakanakov, M. Shopov, "Using GNU/Linux tools for creating ARM9-based embedded applications," in Journal of Electronics, vol. 5, no. 1, pp. 12-128, Sept. 2011.
7. N. Kakanakov, G. Spasov, "Securing against Denial of Service attacks in remote energy management systems," in Journal of Electronics, vol. 5, no. 1, pp. 129-132, Sept. 2011.