

## PERSONAL INFORMATION


**Tibor Gyimóthy, DSc**

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Gender Male | Date of birth 25/09/1953 | Nationality Hungarian

 PLACE OF WORK,  
POSITION

2010-	<b>Head of Department, Full Professor</b> - Institute of Informatics, University of Szeged, 6720 Szeged, Dugonics tér 13
2003-2010	<b>Head of Department, Associate Professor</b> - Institute of Informatics, University of Szeged, 6720 Szeged, Dugonics tér 13
1996-2003	<b>Senior Research Fellow</b> - Research Group of Artificial Intelligence, Hungarian Academy of Sciences - University of Szeged, 6720 Szeged, Dugonics tér 13
1984-1996	<b>Research Fellow</b> - Research Group on the Theory of Automata, Hungarian Academy of Sciences – József Attila University, 6720 Szeged, Dugonics tér 13
1975-1984	<b>Research Assistant</b> - Research Group on the Theory of Automata, Hungarian Academy of Sciences – József Attila University, 6720 Szeged, Dugonics tér 13

## WORK EXPERIENCE

Tibor Gyimóthy's first interest of research was the optimisation of compilers with the aim of reducing the memory and energy consumption of the generated code. Together with Nokia researchers, he published his research results in *ACM Computing Surveys*.

Tibor Gyimóthy is five-time committee member of the *International Conference on Compiler Construction*, which is referred to as one of the most important scientific forums in the given field. In 1996, he was the Programme Committee Chair of the conference.

The main scope of Gyimóthy's present research is exploring the quality problems of IT systems, which includes managing security and maintainability problems as well. Tibor Gyimóthy had a major role in developing program slicing methods, which is regarded as the theoretical basis of this research area.

Tibor Gyimóthy is four-time program committee member of the *International Conference on Software Engineering (ICSE)*, which is the most significant software engineering conference in the world.

In 2011, Tibor Gyimóthy was elected the Conference Chair of the *European Software Engineering Conference (ESEC)/ ACM Foundations of Software Engineering (FSE)*

He has been the supervisor of 12 defended PhD dissertations so far.

**EDUCATION AND TRAINING**

- 2008 **Doctor of Science, DSc**  
Computer Science Software Maintenance Methods  
Hungarian Academy of Sciences, 1051 Budapest, Széchenyi István tér 9.
- 1996 **Doctor of Philosophy, PhD**  
Computer Science Attribute Grammars and their Applications  
József Attila University, 6720 Szeged, Dugonics tér 13
- 1984 **Doctor of University**  
Computer Science Attribute Grammars and their Applications  
József Attila University, 6720 Szeged, Dugonics tér 13
- 1981 **Master of Science, MSc**  
Mathematics and Computer Science  
József Attila University, 6720 Szeged, Dugonics tér 13

Mother tongue Hungarian

Other languages

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B2	C1	B2	C1	B2
English state accredited intermediate C language exam					

### International scientific work

Tibor Gyimóthy has been member of more than 70 international conference programme committees including the *International Conference on Software Engineering*, the *International Conference on Compiler Constructing*, the *International Conference on Software Maintenance*, the *European Conference on Software Maintenance and Reengineering*.

He was the Programme Committee Chair of the *International Conference on Software Maintenance* (2005) and the *European Conference on Software Maintenance and Reengineering* (2002, 2003)

He was the Conference Chair of the *European Software Engineering Conference (ESEC)/ ACM Foundations of Software Engineering (FSE)* in 2011.

Since 2009, he has been member of the *ESEC/FSE Conference Steering Committee*.

He was (1999-2000) Steering Committee member of the *European Joint Conferences on Theory And Practice of Software (ETAPS)*.

He was Editing Committee member (2000-2004) of *AI Communications*.

As a co-author, he edited two special issues of the leading software engineering journal *IEEE Transaction on Software Engineering*, which was published in 2006.

He was member of the Editing Committee of the *Journal of Software: Evolution and Process*.

In 2009, he was the invited lecturer at the *European Conference on Software Maintenance and Reengineering*.

From 1999 to 2001, he was the Chair of the *IEEE Computer Society Central and Eastern European Initiatives Committee*.

### National scientific work

- 2009- Hungarian Academy of Sciences, Committee of Informatics and Computer Science, Chair
- 2009- Hungarian Academy of Sciences, Doctoral Committee of Mathematics, member
- 2011- Hungarian Accreditation Committee – Technical Committee, member
- 2015- Hungarian Scientific Research Fund – Committee of Mathematics, member
- 2008-2010 Hungarian Accreditation Committee – Committee of Mathematics, member
- 2008-2010 Hungarian Scientific Research Fund – Committee of Electrical Engineering and Electronics, member
- 2006-2008 Hungarian Academy of Sciences, Mathematics and Natural Sciences Board of Trustees

### Awards

Best Paper Award of 5 international conferences

“The paper with the greatest scientific impact in the field of software maintenance within the last ten years” – the *International Conference on Software Maintenance*, 2012

Kalmár Prize of the John von Neumann Computer Society, 1997

Széchenyi Fellowship for Professors, 1999-2002

HAS Academic Prize, 2011

Gábor Dénes Prize, 2013

Szent-Györgyi Albert Prize, 2015

Publication metrics  
Number of publications: 200  
Independent citations: 1607  
H-index: 20  
Impact factor 18.738

<https://vm.mtmt.hu/search/tmtosztaly.php?lang=0&vanlink=1&search=1&ponton=&AuthorID=10010796&showmode=0>

5 selected publications

Lajos Schrettner, Judit Jász, Tamás Gergely, Árpád Beszédes, Tibor Gyimóthy: Impact analysis in the presence of dependence clusters using Static Execute After in WebKit. *Journal of Software Evolution and process*.26:(6) pp. 569-588. (2014)

David Binkley, Sebastian Danicic, Tibor Gyimóthy, Mark Harman, Ákos Kiss, and Bogdan Korel. Theoretical foundations of dynamic program slicing. *Theoretical Computer Science*, 360(1-3):23–41, 2006.

Tibor Gyimóthy, Rudolf Ferenc, and István Siket. Empirical validation of object-oriented metrics on open source software for fault prediction. *IEEE Transactions on Software Engineering*, 31(10):897–910, 2005.

Árpád Beszédes, Rudolf Ferenc, Tibor Gyimóthy, André Dolenc, and Konsta Karsisto. Survey of code-size reduction methods. *ACM Computing Surveys*, 35(3):223–267, 2003.

Tibor Gyimóthy, Árpád Beszédes, and István Forgács. An efficient relevant slicing method for debugging. In *Lecture Notes in Computer Science*, 1687:303–321. Springer, 1999

Select publications from the past 5 years

Árpád Beszédes, Lajos Schrettner, Béla Csaba, Tamás Gergely, Judit Jász, Tibor Gyimóthy: Empirical investigation of SEA-based dependence cluster properties. *SCIENCE OF COMPUTER PROGRAMMING* In press: Paper 10.1016/j.scico.2014.09.010. 23 p. (2014)

Lajos Schrettner, Judit Jász, Tamás Gergely, Árpád Beszédes, Tibor Gyimóthy.: Impact analysis in the presence of dependence clusters using Static Execute After in WebKit. *Journal of Software Evolution and Process*.26:(6) pp. 569-588. (2014)

Rudolf Ferenc, Péter Hegedűs, Tibor Gyimóthy: Software Product Quality Models In: Tom Mens, Alexander Serebrenik, Anthony Cleve (szerk.) *Evolving Software Systems*. Berlin; Heidelberg: Springer Verlag, 2014. pp. 65-100.

Vidács László, Beszédes Árpád, Tengeri Dávid, Siket István, Gyimóthy Tibor.: Test Suite Reduction for Fault Detection and Localization: a Combined Approach In: Serge Demeyer, Dave Binkley, Filippo Ricca (szerk.) *IEEE Conference on Software Maintenance, Reengineering, and Reverse Engineering (CSMR-WCRE)*.: Antwerp, Belgium, 2014.02.03-2014.02.06. Antwerp: IEEE Computer Society Press, 2014. pp. 204-213.

Árpád Beszédes, Tamás Gergely, Lajos Schrettner, Judit Jász, László Langó, Tibor Gyimóthy: Code Coverage-Based Regression Test Selection and Prioritization in WebKit In: Paolo Tonella, Massimiliano Di Penta, Jonathan I Maletic (szerk.) *Proceedings of the 28th IEEE International Conference on Software Maintenance (ICSM)*.: Riva del Garda, Olaszország, 2012.09.23-2012.09.28. Los Alamitos: IEEE Comput. Soc. Press, 2012. pp. 46-55.

Schrettner L, Fülöp L J, Beszédes Á, Kiss Á, Gyimóthy T.: Software Quality Model and Framework with Applications in Industrial Context In: Mens T, Cleve A, Ferenc R (szerk.) *Proceedings of the 16th European Conference on Software Maintenance and Reengineering (CSMR'12)*: Szeged, Magyarország, 2012.03.27-2012.03.30. Los Alamitos: IEEE Computer Society, 2012. pp. 453-456

Tibor Bakota, Péter Hegedűs, Péter Körtvélyesi, Rudolf Ferenc, Tibor Gyimóthy.: A Probabilistic Software Quality Model In: *IEEE Proceedings of the 27th IEEE International Conference on Software Maintenance*.: Williamsburg, Amerikai Egyesült Államok, 2011.09.25-2011.09.30. Los Alamitos: IEEE Computer Society, 2011. pp. 243-252