

# Curriculum Vitae

Profesor Ivica Kožar

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## Osobni podaci

IVICA KOŽAR, m  
Broj znanstvenika: 146206  
Hrvatsko državljanstvo

## Strani jezici

English (writes, speaks, reads)  
German (writes, speaks, reads)  
Italian (speaks, reads)

## Zaposlenje

Redoviti profesor u trajnom zvanju  
Pročelnik Zavoda za računalno modeliranje materijala i  
konstrukcija  
Sveučilište u Rijeci, Građevinski fakultet  
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## Školovanje

1974-1978, Prva gimnazija u Rijeci, Hrvatska; oslobođen mature

## Diploma

1978-1983, Sveučilište u Rijeci, Građevinski fakultet; (4.76/5)  
Rektorova nagrada

## Doktorski studij

1991 Sveučilište u Zagrebu, Građevinski fakultet  
Tema: "Analiza stabilnosti ploča i ljuski"  
Mentorr: Prof.dr. Josip Dvornik

## Poslije-doktorsko usavršavanje

- 1987 - CISM 1 tjedan, Scholarship for attending Center of Mechanical Sciences, Udine, Italy
- 1994, 6 mjeseci na Ecole Polytechnique Federale de Lausanne, DGC, LSC, CH-1015 Lausanne, Suisse, stipendija "Jeunes Professeurs" švicarske vlade za mlade profesore.

- 1995, 6 mjeseci na Universität Stuttgart, Institut für Werkstoffe im Bauwesen, Pfaffenwaldring 4, 70550 Stuttgart, Deutschland.
- 1996, 3 mjeseca na Universität Stuttgart, Institut für Werkstoffe im Bauwesen, Pfaffenwaldring 4, 70550 Stuttgart, Deutschland.
- 1998, 3 mjeseca na Universität Stuttgart, Institut für Werkstoffe im Bauwesen, Pfaffenwaldring 4, 70550 Stuttgart, Deutschland.

#### Pozvana predavanja

- "Tensor damage model for concrete materials" Institut für Werkstoffe im Bauwesen, Universität Stuttgart, Germany
- "Microplane material model for concrete materials" Faculty of Mechanical Engineering University of Maribor, Slovenia
- NATO Advanced Research Workshop "Multi-physics and Multi-scale Computer Models in Non-linear Analysis and Optimal Design of Engineering Structures under Extreme Conditions", Bled, Slovenia, 13-17.06.2004.
- NATO Advanced Research Workshop "Extreme Man-Made and Natural Hazards in Dynamics of Structures", Opatija, Croatia, 28.5-1.06.2006.
- Summer school "Finite element method" organised by Faculty of Minig, Mechanical and Civil Engineering, University of Tuzla 2008., Bosnia
- NATO Advanced Research Workshop "Damage assessment and reconstruction after natural disasters and previous military activities", Sarajevo, Bosnia and Herzegovina, 5.-9.10.2008.
- 2009 – pozvani profesor na Laboratoire de Mécanique et Technologie, Ecole normale supérieure de Cachan, France
- "Similarity of structures based on matrix similarity", Institut für Wissenschaftliches Rechnen, Technische Universität Braunschweig, 2016

#### Zaposlenja

- 1983 – 1987 Asistent na Sveučilište u Rijeci, Građevinski fakultet
- 1992 – Docent na Sveučilište u Rijeci, Građevinski fakultet
- 1996 – Izvanredni profesor na Sveučilište u Rijeci, Građevinski fakultet
- 2002 – Redovni profesor na Sveučilište u Rijeci, Građevinski fakultet
- 2006 – Redovni profesor u trajnom zvanju na Sveučilište u Rijeci, Građevinski fakultet

## Mentor doktoranata

- Danijel Simonetti (u tijeku) "Reliability 3D model of prefabricated RC structural elements?", Sveučilište u Rijeci, Građevinski fakultet
- Marijana Cuculić (u tijeku) "Numerical 3D model of urban thermal islands?", Sveučilište u Rijeci, Građevinski fakultet
- Neira Torić Malić 2012 "Analysis of flexible structures under influence of moving loading with finite strip method", Sveučilište u Rijeci, Građevinski fakultet
- Silvija Mrakovčić 2012 "Ultra High Performance Concrete Overpass Analysis", Sveučilište u Zagrebu, Građevinski fakultet, komentor
- Ivana Štimac 2006 "Application of influence lines for displacements in damage detection of structures" Sveučilište u Splitu, Građevinski fakultet, komentor

## Znanost

### Europski projekt (financiranje kroz EU)

- IPA3C Project 2013 – 2015, "Center of Excellence for Structural Health", 0.68 mil.euros, principal coordinator for FCE which is one of three partners

### Međunarodni projekti

- Germany – Croatia, Institut für Werkstoffe im Bauwesen, Universität Stuttgart: „Simulation of penetration of steel anchor into concrete block“ ("Simulation des Eintreibvorgangs von Setzbolzen in Beton"), 2004 – 2008, principal researcher
- Germany – Croatia, Institut für Werkstoffe im Bauwesen, Universität Stuttgart: „Design of computer program for 3D thermal and humidity analysis“ ("Erstellung eines 3D FE Programms für die Ermittlung der Temperatur- und Feuchteverteilung"), 2003, principal researcher
- Slovenia – Croatia, Faculty of Mechanical Engineering University of Maribor "Damage modeling in engineering materials ", 1998–2000, principal researcher
- Slovenia – Croatia, Faculty of Mechanical Engineering University of Maribor, "Damage initiation and propagation in engineering materials", 2001–2003, principal researcher
- Great Britain – Croatia (ALIS), Department of Civil Engineering University of Glasgow, "Investigation of Damage Evolution in Continuum Modelling of Quasibrittle Materials", 1998–1999 and 1999–2000, principal researcher

#### Znanstveni projekt Hrvatske zaklade za znanost

- HRZZ 9068 “Multi-scale concrete model with parameter identification – ConcreteMuScID” 2014 – 2018, glavni istraživač

#### Znanstveni projekti MZOS

- “Long flexible structures: nonlinear modeling with visualisation“, No. 114-0982562-1460, 2006 – 2013. This project is part of Scientific programme coordinated by Croatian Scientific Institute “Rudjer Bošković“, principal researcher
- “Numerical modeling of quasi-brittle materials“, No. 0114002, 2002-2006, principal researcher
- “Numerical analysis of quasi-brittle materials“, No. 114102, 1997-2001, principal researcher
- “Dynamical analysis of laminated plates under impact loading“, No. 2-11-449, 1993-1996, principal researcher

#### Tehnološki projekt

- “Influence of moving load on structures“, No. TP-02/0114-02, 2002-2004, principal researcher.

#### Projekti za industriju (značajniji)

- Nelinearna dinamička analiza željezničkog pričvršćenja SKL za “Hrvatske željeznice“, 2005.
- Procjena stanja (“health monitoring“) čeličnih užadi zip line-a u adrenalinskom parku u Omišu. 2015, 2016 (stanje se procjenjuje kombinacijom mjerenja na licu mjesta i izračunima na matematičkom modelu).

#### Računalni programi (software) za industriju (značajniji)

- Static and dynamic analysis of 2D structures based on finite element method
- Static and dynamic analysis of plates with contact possibilities.
- Static and dynamic analysis of axi-symmetrical shells with non-symmetrical loading based on self-developed finite element
- Geometrically non-linear static analysis of general shells
- Materially non-linear static analysis of 2D concrete structures (under coordination of Prof. Joško Ožbolt, IWB Universität Stuttgart)
- Materially non-linear static analysis of 3D concrete structures (under coordination of Prof. Joško Ožbolt, IWB Universität Stuttgart)

- Automatic design of reinforced concrete structures
- Building physics with thermal energy saving calculations
- Building physics for sound resistance determination in buildings
- Analysis of heat flow in 2D structures
- Automatic design (and drawings) of longitudinal cross sections of various pipes
- Dinamička analiza ravninskih konstrukcija pod djelovanjem pokretnog opterećenja (DARK)
- 3D nestacionarna analiza toplinskog toka
- Commercial quality software for design of steel anchors in concrete for various German firms (in collaboration with Prof. Joško Ožbolt)
- Statička i dinamička analiza plitkih i dubokih lančanica pod mirnim i pokretnim opterećenjem

## Članstva

- Potpredsjednik Matičnog odbora za polje arhitekture i urbanizma, geodezije i građevinarstva
- Hrvatskog društva za mehaniku (predsjednik 2013 – 2015)
- Član Editorial Board of “Coupled Systems Mechanics”, An International Journal, Techno Press, Korea Adv. Institute of Sci.&Tech. (KAIST), S.Korea
- Gost-urednik broja 1/2 2009 Journal “Engineering Computations” (Emerald)

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