

**CORRIGENDUM TO  
“DIAGNOSIS OF TYPE, LOCATION AND SIZE OF  
CRACKS BY USING GENERALIZED DIFFERENTIAL  
QUADRATURE AND RAYLEIGH QUOTIENT METHODS”**

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MAJID AKBARZADEH KHORSHIDI  
*School of Mechanical Engineering, College of Engineering,  
University of Tehran, Iran,*  
e-mail: majid.akbarzadeh.kh@gmail.com

DELARA SOLTANI  
*School of Mechanical Engineering,  
Mazandaran Institute of Technology, Iran,*  
e-mail: delara.soltani@gmail.com

The presented paper (Diagnosis of type, location and size of cracks by using generalized differential quadrature and Rayleigh quotient methods, Journal of Theoretical and Applied Mechanics, Sofia, 2013, vol. 43, No. 1, pp. 61–70) is a numerical solution of proposed algorithm by Behzad et al. [1] and the idea of Ref [1] is used in our article.

- [1] BEHZAD, M., A. GHADAMI, A. MAGHSOODI. Detection of Type, Location and Size of Crack in Cantilever Euler-Bernoulli Beam (In Persian), 20<sup>th</sup> Annual Int. Iranian Mech. Eng. Conf., 2012, Shiraz, Iran.

Eq (2)

$$k_t = \frac{EBH^2}{72\pi F(\alpha_t)}.$$

Eq (4)

$$\alpha_t = \frac{a_t}{H}.$$

Table 1. Results of presented solution

<i>Normal beam</i>			<i>Cracked beam</i>				
$\omega_{1,1}$	$\omega_{1,2}$	$\omega_{2,1}$	$\omega_{1,1}$	$\omega_{1,2}$	$\omega_{2,1}$	$\alpha$	$\beta$
625.32	11899.04	5442.12	614.58	11842.42	5033.12	0.499	0.193
759.40	11611.01	4052.32	742.86	12004.56	4048.12	0.492	0.409
912.24	12590.12	4890.56	896.03	12545.01	4810.61	0.210	0.511
868.76	12502.34	4342.24	865.37	12492.32	4321.77	0.352	0.701
903.55	10215.76	3960.32	890.36	10185.72	3946.15	0.502	0.701
822.09	12385.93	3692.87	808.42	12370.91	3682.21	0.495	0.497