There ~~is~~are a balanced number of unknowns and equations and therefore, the new coefficients of integrals and the generalized nodal displacements can be computed in each stage of the iteration~~.~~.
It is worth noting that ~~the~~ both sets of linear equations are not simultaneous, thus the number of simultaneous equations to be solved can be reduced~~.~~. The first set of equations can be applied firstly to define a relationship between the new integral coefficients and the generalized nodal displacements~~.~~ . Then this relationship can be enforced to the second set of equations to introduce a system of simultaneous linear equations with 3NN equations~~.~~. Therefore, the next steps are:
11- Calculating the nodal displacements of all nodes.
12- Calculating the new coefficients at each stage of the iterations including the initial one.
13- Performing steps (11 and 12) until the set of solutions fall inside the required tolerance and the method converges~~.~~. However, as explained through this dissertation, the matrix coefficients during the structural analysis using the established method remains unchanged and can be stored and utilized in all stages of the iterations.
14 - Stiffness of each node is determined ~~The~~ at the end of each stage~~ , stiffness of each node is determined~~; if the stiffness of each node~~s~~ is zero~~,~~ Buckling structure is started ~~,~~. consider the stiffness of each node is zero, buckling modes of element based on deformation function (Y) is determined. If the structural stiffness determinant to ~~zero ,~~zero, ~~Ultimate~~ the ultimate ~~Load~~ load ~~Of~~ of frame is determined.

Comment [Reviewer13]: ?
Comment [Reviewer14]: ?
Comment [Reviewer15]: ?

3. Formulation of an Element

In this ~~section~~section, the behavior of an element of a frame is treated by considering geometrical non-linear problems~~.~~. An arbitrary element of a frame is shown in Fig. (1) with its local and global co-ordinates~~.~~. The generalized end displacements at both ends show all possible movements of the element for the in-plane analysis~~.~~. Here, it is assumed that the method has a constant flexural rigidity and axial load over each element~~.~~. The governing differential equations for the j-th element are expressed in ~~Eqn~~Eqs. (1). ~~Eqn~~Eq. (1) is a simple integral equation and its solution can be obtained by twice ~~integrating~~integration~~.~~. The constant coefficients of the integrals can be determined by enforcing the generalized displacements ~~is~~ in the x direction $\left(d_{1,j}, d_{4,j}\right)$~~.~~. Since each element of a frame is connected to the adjacent elements, its generalized displacement will be changed during the process of the solution~~.~~. Hence, the constant coefficients of the integral for the axial deflection "x" must be determined in each stage of the iteration~~.~~. In other words, the axial deflections of the elements will influence the solution of the frames as an assemblage ~~structures .~~structures. ~~Eqn~~ Eq. (1) is a linear differential equation that can be solved by the Modified Newmark Method~~.~~. This solution was solved in the previous chapters for different types of problems and end conditions ~~was solved in the previous chapters.~~ . Its equivalent integral equation for the iterations is shown in chapter four~~.~~. The integral equations for both ~~Eqn~~Eq.~~s~~ (1) are again rewritten here, as:

Comment [Reviewer16]: هر جزئی؟ یا یک جزء خاص؟
Comment [Reviewer17]: ?
Comment [Reviewer18]: راهکار حل نمی شود. مسئله حل می شود.
Comment [Reviewer19]: ?
Comment [Reviewer20]: برای هر دو معادله ۱؟ معادل ۱ که مفرد است!؟

$$\left(x_i\right)_j = \iint dx\,dx \qquad \left(y_i\right)_j = \frac{1}{EI_j}\iiint\iint\left(N_j\left(y_{i-1}\right)_j + q_j\right)dx\,dx\,dx\,dx \tag{5}$$

The initial arbitrary solutions must be defined in both directions of displacement~~.~~. As explained in the chapter three, these solutions are chosen from polynomials whose order must be determined from the boundary condition requirements~~.~~. Obviously, the generalized displacements are the boundary conditions for these differential equations~~.~~. Since the initial deflections are:

Comment [Reviewer21]: ؟

$$\left(x_1\right)_j = c_{1,j}x + c_{2,j} \qquad \left(y_1\right)_j = \frac{a_{1,j}}{3!}x^3 + \frac{a_{2,j}}{2!}x^2 + b_{1,j}x + b_{2,j} \tag{6}$$

~~Eqn~~Equations~~s~~ (7) and (~~and~~ 8) introduce six unknown coefficients for each element~~.~~. These coefficients are calculated by enforcing the generalized displacements at both ends of the element into the displacement functions.

Comment [Reviewer22]: ادامه جمله قبل زل نداده اید.
Since…., ….